



VILLA LIGHTING SUPPLY
2929 Chouteau Ave.
St. Louis, MO 63103
Tel: (314) 531-2600
Fax: (314) 531-8720
Toll Free: 1-800-325-0963

GUARANTEE ELECTRICAL CONTRACTORS
JOB: WEBSTER ISB
PO# 505555-11317 PC 13

TYPE	QTY ORDERED	MANUFACTURER	CATALOG NUMBER
BB2	3	TECH	700BCALDY-S-LED830-277
BC15	1	LUMENWERX	LWERX-VIA4WDI-HLO-LED-80-750-750- 30-15'-UNV-D-1-DMB-W-(REMOTE DRIVERS)-WHITE
CA	8	LUMENWERX	LWERX-VIA1.5S-HLO-LED-80-400- 30-4FT-277-D (1%)1-DRC- W-WHITE
CB	4	METALUX	4VT2-LD4-4-DR-W-UNV-L835-CD1- WL-TH-U
EA	1	IO LTG	06.SSS.2.PMC.NR.ASYM.3K.66.50'
EE	30	LUMENPULSE	LOID-24V-24-30K-DIM-ASL LOIDC00009085
EE	30	LUMENPULSE	PACBOX-210/277-DIRCT WHITE-NO/DIM-24
EE	30	LUMENPULSE	ROB-LOI-24
EE	1	LUMENPULSE	LOILC-UL-10 LEADER CABLE
EE	1	LUMENPULSE	LOI-JB-UL JBOX
EE	27	LUMENPULSE	LOIJC-UL-8FT-SPL009335A 8' JUMPER CABLE
EE	2	LUMENPULSE	LOIJC-UL-12FT-SOL009335B 12' JUMPER CABLE
EG3	4	STERNBERG	STE-1A-1970LED-F-GTSR-SV1- 4ARC35K-T3-F/EZ/62PM-MOD/ 550P-12/CM/DRYLAC 49/66220
EG3	4	STERNBERG	BOLT-ANCHOR SET OF 4
EG5	7	STERNBERG	1A-1970LED-F-GTSR-SV1-4ARC35K-T5-F/EZ/62PM- MOD/550P-12/CM/DRYLAC 49/66220
EG5	7	STERNBERG	BOLT-ANCHOR SET OF 4
EG5R	3	STERNBERG	1A-1970LED-F-GTSR-SV1-4ARC35K-T5-F/EZ/62PM- MOD/550P-12/1-GFI/LPIUC/CM DRYLAC 49/66220
EG5R	3	STERNBERG	BOLT-ANCHOR SET OF 4
L41	1	STERNBERG	550P5-12-BCC/MOD PLAT/CM
A	1	POULSEN	NYP/A/1/50MH/ED-17 MEDIUM/120/208/240/277V/SRA TIGER DRYLAC 29/65650 FINISH PER DWG #131-14870-001
A	1	POULSEN	POSTTOP, SRA-NYP/A, 1-90, STD, TIGER DRYLAC 29/65650 FINISH PER DWG # 131-14870-001
A	1	POULSEN	CAP, POLE 4IN O.D. TIGER DRYLAC 29/65650 FINISH PER DWG #131-14870-001
PA4	100	LUMENWERX	LWERX-MP1279VIA4PDI-HLO-LGO-LED- 80-750-500-30-4FT-277-D-1-53WAC36-W -TG9-WHITE
PA6	2	LUMENWERX	LWERX-MP1279VIA4PDI-HLO-LGO-LED-80- 750-500-30-6'-277-D-1-53WAC36-W- TG9-WHITE
PA8	7	LUMENWERX	LWERX-MP1279VIA4PDI-HLO-LGO-LED-80 750-500-30-8'-277-D-1-53WAC36-W-TG9 -WHITE
PA12	3	LUMENWERX	LWERX-MP1279VIA4PDIWS-HLO-LGO-LED- 80-750-500-30-12'-277-D-1-53WAC36-W -TG9-WHITE
PA16-2	1	LUMENWERX	LWERX-MP1279VIA4PDI-HLO-LGO-LED- 80-750-500-30-16'-277-D-2-53WAC36-W -TG9/16-WHITE
PA-16-1	1	LUMENWERX	LWERX-MP1279VIA4PDI-HLO-LGO-LED-80- 750-500-30-16'-277-D-1-53WAC36-W-TG 9-WHITE



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PA22	10	LUMENWERX	LWERX-MP1279VIA4PDI-HLO-LGO-LED- 80-750-500-30-22'-277-D-2-53WAC36-W -TG9-WHITE (10FT SEC/12FT SEC SEPERATE CIRCUIT)
PA24	39	LUMENWERX	LWERX-MP1279VIA4PDI-HLO-LGO-LED- 80-750-500-30-24'-277-D-2-53WAC36-W -TG9-WHITE (2-12FT SECTIONS SEPERATE CIRCUIT)
PB26-6	6	FINELITE	FN-HP4D-26'-6"-H-3000K-F-277-FM- SC-C4-1%-DIM-WHITE
PC	109	METALUX	MX-4SNLED-LD4-60SL-UNV-L835-CD1-U 12538813 FOR 4SNLED-LD4-50SL-LW-UNV-L835-CD1-U TYPE PC .
PC	109	METALUX	MX-SNLED-LENS-LW-4FT-U 12351408 LENS ONLY COOPER TYPE PC .
PC	109	METALUX	AYC-CHAIN/SET-U
PD8	4	LUMENWERX	LWERX-MP1331VIA4PDIWS-HLO-LGO-LED- 80-750-1000-30-8'-277-D-1-5WAC36/CU W-WHITE
RA2	13	FINELITE	FN-HP-4R-2'-H-3000K-F-277V-SC-C3F- DIM
RA3	8	FINELITE	FN-HP-4R-3'-H-3000K-F-277V-SC- C3F-DIM
RA4	75	FINELITE	FN-HP-4R-4'-H-3000K-F-277-SC- C3F-DIM
RA6	60	FINELITE	FN-HP-4R-6'-H-3000K-F-277-SC- C3F-DIM
RA8	19	FINELITE	FN-HP-4R-8'-H-3000K-F-277V-SC- C3F-DIM
RA10	1	FINELITE	FN-HP-4R-10'-H-3000K-F-277V-SC- C3F-DIM
RA12	2	FINELITE	FN-HP-4R-12'-H-3000K-F-277V-SC- C3F-DIM
RA16	1	FINELITE	FN-HP-4R-16'-H-3000K-F-277V-SC- C3F-DIM
RA18	1	FINELITE	FN-HP-4R-18'-H-3000K-F-277V-2C- C3F-DIM 12FT ON 1-CIRCUIT/6FT ON SEP CIRCUIT NEED 6FT ON ONE FEED/CIRC AND THE OTHER 12FT ON ANOTHER
RA24	9	FINELITE	FN-HP-4R-68'-H-3000K-F-277V-2C- C2T-DIM ONE LEG OF FOUR ON SEP CIRCUIT ONE 10FT LEG ON A SEPERATE FEED/CIR
RA-24X10	1	FINELITE	FN-HP-4R-68'-H-3000K-F-277V-2C- C2T-DIM ONE LEG OF FOUR ON SEP CIRCUIT ONE 10FT LEG ON A SEPERATE FEED/CIR FINELITE TYPE RA-24X9 . *** Non-Stock ***
RB-6X7	1	FINELITE	FN-HP-4R-13'-H-3000K-F-277V- SC-SF-DIM 6FT X 7FT L C/O: 1 TYPE RB6C 1 TYPE RB7C 1-90 DEGREE CORNER DRYWALL CEILING FINELITES TYPE RB-6X7 . *** Non-Stock ***
RA-24X6	1	FINELITE	FN-HP-4R-62'8"-H-3000K-F-277V- SC-C3F-DIM 24FT 8IN X 6FT 8IN RECTANGLE C/O: 2 TYPE RA24-8C 2-TYPE RA6-8C 4-90 DEGREE CORNERS FINELITE TYPE RA-24X6 . *** Non-Stock ***
RB-9-4X6	1	FINELITE	FN-HP-4R-15'8"-H-3000K-F-277V- SC-SF-DIM 9FT 4IN X 6FT 4IN L C/O: 1 TYPE RB9-4C 1 TYPE RB6-4C 1 90 DREGREE CORNER DRYWALL CEILING EACH LEG ON SEPERATE FEED
RA-12X6	1	FINELITE	FN-HP-4R-18'4"-H-3000K-F-277V-MC- C3F-DIM 12FT 4IN X 6FT L C/O: 1-TYPE RA12-4C 1-TYPE RA6C 1-90 DEGREE CORNER 6FT LEG ON SEPERATE CKT
RB4	9	FINELITE	FN-HP-4R-4'-H-3000K-F-277V-SC-SF- DIM
RB6	8	FINELITE	FN-HP-4R-6'-H-3000K-F-277-SC- SF-DIM
RB8	4	FINELITE	FN-HP-4R-8'-H-3000K-F-277-SC- SF-DIM
RB10	8	FINELITE	FN-HP-4R-10'-H-3000K-F-277V-SC- SF-DIM
RB17	1	FINELITE	FN-HP-4R-17'-H-3000K-F-277V- SC-SF-DIM
RC4-7	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-4'7"-277-D-1-DTL-W



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RC5	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-5'-277-D-1-DTL-W
RC5-6	4	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-5'6"-277-D-1-DTL-W
RC6	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-6'-277-D-1-DTL-W
RC7	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-7'-277-D-1-DTL-W
RC8	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-8'-277-D-1-DTL-W
RC9	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-9'-277-D-1-DTL-W
RC9-.1%	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-9-277-D (0.1% ELDOLEDSOLO)- 1-DTL-W
RC10	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-10'277-D-1-DTL-W
RC10-6	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-10'6"-277-D-1-DTL-W
RC12	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-12'-277-D-1-DTL-W
RC12-6	2	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-12'6"-277-D-1-DTL-W
RC15-6-.1%	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-15'6"-277-D(0.1% ELDOLEDSOLO)- 1-DTL-W
RC18-6	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-18'6"-277-D-1-DTL-W
RC34-3	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-34'3"-277-D-1-DTL-W
RC34-6	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-34'6"-277-D-1-DTL-W
RC43-6	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-43'6"-277-D-1-DTL-W
RC45-8	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-45'8"-277-D-1-DTL-W
RCG6	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-6-277-D-1-ST-W
RCG9-9	2	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-9'9"-277-D-1-ST-W
RCG10	10	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-10'-277-D-1-ST-W
RCG10-6	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-10'6"-277-D-1-ST-W
RCG12	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-12'-277-D-1-ST-W
RCG12-6	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500-30-12FT 6IN-277-D-1-ST-W
RCG15	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-15'-277-D-1-ST-W
RCG16	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500-16FT-27 7-D-1-ST-W
RCG20-6	3	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-20'6"-277-D-1-ST-W
RCG31	1	LUMENWERX	LWERX-V3SKID-GRO-LED-80-500- 30-31'-277-D-1-ST-W
RD	41	PORTFOLIO	LD4B15D010 HOUSING 1500LM



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TYPE	QTY ORDERED	MANUFACTURER	CATALOG NUMBER
RD	41	PORTFOLIO	EU4B10208030 LED MODULE
RD	41	PORTFOLIO	4LBM1H TRIM MED
RE	29	USAI	3131-B1-S-10-AL20F- LSTA4-8416-C330KH-25-NC-277-DIML2
RE	29	USAI	USAI-LSTA4-8416-C3-30KH-25-NC-277V-DIML6 HOUSING
RE	29	USAI	USAI-AL20F SIZE F ACCESSORY LENS USAI LIGHTING TYPE RE LENS HOLD
RED	16	USAI	1011-B1-10-LSLD4-9020- M2-30KS-50-NCSM1-277-DIML6A
RED	16	USAI	USAI-LSLD4-9020-M2-30KS-50-NCSM1-277V-DIML6A
RF	30	ELLIPTIPAR	S-222-M007-L(9/16" TEGULAR TILE)-02-M-0-30-ZX
RG	36	KENALL	CSEDI-22-67L35K-DCC-DV-5F- 2H CHANGE TO FIT 9/16 TEG TILE .
RG	72	KENALL	EQ-CLIPS
RH	182	PORTFOLIO	LD4B1020D010 HOUSING
RH	182	PORTFOLIO	EU4B10208030 LED MODULE
RH	182	PORTFOLIO	4LBW1H TRIM WIDE
RHB	10	PORTFOLIO	LD4B20D010 HOUSING NEED TO ACCEPT 2.75" DEEP CEILING .
RHB	10	PORTFOLIO	EU4B10208030 POWER MODULE LED DOWNLIGHT 4" TYPE RHB .
RHB	10	PORTFOLIO	4LBW1H TRIM LED 4" WIDE SF H TYPE RHB .
RJ4	5	CON-TECH	RDA4L230K27D2FX4WHT-P2CW COMPATABLE WITH 1% DIMMING (4) HEAD UNIT ON (2) SEPERATE CIRCUIT, 1% 0-10V DIMMING
RK2	19	METALUX	22GRRA-LD4-32-F1-UNV-L835-HCD1- PAF-U
RK2	76	METALUX	EQ-CLIP-U
RL	8	PORTFOLIO	LDA4A13835D010TE
RL	8	PORTFOLIO	LAR35FL
RL	8	PORTFOLIO	4LA1WWF
RM2 9/16 STD	5	LUMENWERX	LWERX-NOVRS-22-PMO-HLO-LED- 80-3200-30-277-D-1-TB9-W
RM2 9/16 STD	10	LUMENWERX	LWERX-EQ-CLIPS
RM2 9/16 TEG	51	LUMENWERX	LWERX-NOVRS-22-PMO-HLO-LED-80- 3200-30-277-D-1-TG9-W
RM2 9/16 TEG	102	LUMENWERX	LWERX-EQ-CLIPS
RM4	12	LUMENWERX	LWERX-NOVRS-24-PMO-HLO-LED- 80-4000-30-277-D-1-TG9-W
RM4	48	LUMENWERX	LWERX-EQ-CLIPS



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RN	8	FINELITE	FN-HP-4R-4FT-S-3000K-F-277V- SC-VF-WOOD-DIM
RP16	1	FOCAL POINT	FSM4L-SR-875LF-30K-1C-277-LD1-T2-WH-16
RP20	1	FOCAL POINT	FSM4L-SR-875LF-30K-1C-277-LD1-T2-WH-20'
RP24	1	FOCAL POINT	FSM4L-SR-875LF-30K-1C-277-LD1-T2-WH-24'
RP28	1	FOCAL POINT	FSM4L-SR-875LF-30K-1C-277-LD1-T2-WH-28'
RR4X4	1	FINELITE	FN-HP-4R-16'-S-3000K-F-277V- SC-DIM (4X4) -SF DRYWALL CEILING
RR4X6 9/16 TEG	8	FINELITE	FN-HP-4R-20'-S-3000K-F-277V- SC-DIM (4X6)-C2T
RR6X8 DRYWALL	1	FINELITE	FN-HP-4R-28'-S-3000K-F-277V- SC-DIM(6X8)-SF DRYWALL CEILING
RS8	2	FINELITE	FN-HP-4R-8'-H-3000K-F-277V- SC-C3F-DIM-ELDOLED
UA2	20	KENALL	AUCLED-I-MW-11L30K-24"-277V- MS-SW
UA4	55	KENALL	AUCLED-I-MW-20L30K-48" 277V-MS-SW
UB4	36	FINELITE	UC-E-45"-FINISH-PS-60W MAGNETIC MOUNTING INCLUDED
UB4	12	FINELITE	PS-60W WITH L5-15P PLUG
UB4	24	FINELITE	CP-28
WA	2	FINELITE	FN-HP-4R-4'-SO-3000K-277V-SC-SF VERITCAL IN WALL-SECURE LENS
XA	13	SURE-LITES	LPX6
XA	1	SURE-LITES	LPX18PKWH
XB	14	SURE-LITES	EUXRL
XB	14	SURE-LITES	EUX6RH
XC	25	SURE-LITES	EUXRL
XC	25	SURE-LITES	EUX6RH
YA	1	ISOLITE	ELT-FT-AC-G-1C-WH-SW-NA- CW (IN USE)
EB-88'	1	LED LINEAR	VARIOLED HYDRA LD10 W825 IP67 IN 003 W/ 60° LENS AND 45° CLIPS
			1 RUN AT 88'- ACTUAL LENGTH=
			THE 85' RUN WILL BE MADE OF 17 X 4.98' (60") & 1 X 3.34 (40") SEGMENTS
			VARIOLED HYDRA LD10 W825/1519MM IP67 IN 003 W/ 60° CLEAR LENS
			VARIOLED HYDRA LD10 W825/1019MM IP67 IN 003 W/ 60° CLEAR LENS
			CONNECT MAXIMUM 3 X PIECES IN SERIES



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			VARIOCON FEMALE MONO 2 X 0.34 MM2 5 M IP67
			VARIOCON PROTECT SNAP
			VARIOCLIPS 003/006 45 DEG.
			HLG-80H-24A
			80W 24V LED DRIVER 90-305VAC (ON/OFF)
			LINEAR DRIVE DC 211D-LG
			LOGARITHMIC 0-10V MODULE 8 AMPS MAX - FOR STATIC WHITE/COLOUR
			RUN LENGTH BASED OFF DRAWING- MUST BE FIELD VERIFIED BEFORE ORDERING
EB-120'	1	LED LINEAR	VARIOLED HYDRA LD10 W825 IP67 IN 003 W/ 60° LENS AND 45° CLIPS
			1 RUN AT 120'- ACTUAL LENGTH= 120.03' (1440.4 INCHES)
			120 FEET C/O (23)@4.98' (60") + (1)@2.11'(25.4") + (1)@3.3' (35")
			VARIOLED HYDRA LD10 W825/1519MM IP67 IN 003 W/ 60° CLEAR LENS
			VARIOLED HYDRA LD10 W825/644MM IP67 IN 003 W/ 60° CLEAR LENS
			VARIOLED HYDRA LD10 W825/894MM IP67 IN 003 W/ 60° CLEAR LENS
			CONNECT MAXIMUM 3 X 4.98' PIECES IN SERIES
			VARIOCON FEMALE MONO 2 X 0.34 MM2 5 M IP67
			VARIOCON PROTECT SNAP
			VARIOCLIPS 003/006 45 DEG.
			HLG-80H-24A
			80W 24V LED DRIVER 90-305VAC (ON/OFF)
			LINEAR DRIVE DC 211D-LG
			LOGARITHMIC 0-10V MODULE 8 AMPS MAX - FOR STATIC WHITE/COLOUR
			RUN LENGTH BASED OFF DRAWING- MUST BE FIELD VERIFIED BEFORE ORDERING
EC-ALT (ASI 039)	8	VISTA	VA-1043-B-MF-30-C-MV-010-FC LED FLOOD FULL SHIELD INSTALLED
EC-ALT (ASI 039)	8	VISTA	VA-HL-1034 HONEYCOMB LOUVER
EC-ALT (ASI 039)	8	VISTA	VA-MP-150 MOUNTING STAKE
ED	1	LED LINEAR	LEDLIN-VARIO.LED.HYRA.LD5.W825 IP67 IN 003 W 90D DIFFUSE LENS 6 METER OPEN END LEAD ON FIRST FIXTURE IN EACH RUN (3)20'RUNS(19.63FT)=(4) 1519MM FIXTURE PER RUN TYPE ED-20' .
			VERIFY COLOR TEMP BEFORE ORDERING



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			1 RUN AT 25'4"- ACTUAL LENGTH= 24.91'
			THE 25'-4" RUN WILL BE MADE OF 5 X 4.98'RUNS
			VARIOLED HYDRA LD5 W830/1519MM IP67 IN 003 W/ 90° CLEAR LENS
			VARIOCON FEMALE MONO 2 X 0.34 MM2 5 M IP67
			VARIOCON PROTECT SNAP
			VARIOCLIPS 003/006 45 DEG.
			HLG-80H-24A
			80W 24V LED DRIVER 90-305VAC (ON/OFF)
			LINEAR DRIVE DC 211D-LG
			LOGARITHMIC 0-10V MODULE 8 AMPS MAX - FOR STATIC WHITE/COLOUR
			RUN LENGTH BASED OFF DRAWING- MUST BE FIELD VERIFIED BEFORE ORDERING
ED	1	LED LINEAR	LEDLIN-VARIO.LED.HYDRA.LD5.W825 IP67 IN 003 W 90D DIFFUSE LENS (1) RUN (13.72'FT)/164.6") = (2)1519MM & (1)1144MM *** Non-Stock ***
ED	75	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS *** Non-Stock ***
ED	2	LED LINEAR	LEDLIN-HLG-80H-24A LED DRIVER *** Non-Stock ***
ED	1	LED LINEAR	LEDLIN-HLG-40H-24A LED DRIVER *** Non-Stock ***
ED	2	LED LINEAR	LEDLIN-DC211D-LG LINEAR DRIVE LED LIGHTING *** Non-Stock ***
EH	21	PERF IN LIGHT	074684-3000K-IR-17258
EH	1	PERF IN LIGHT	074684-3000K-BK-17258
EH	23	PERF IN LIGHT	ROUGH-IN-ALU-TECH-RO-310409 BACK BOX ONLY
			For full range dimming each driver paired with (1) eldoLED LD DC 211D-LG
			If MeanWell 24"B" drivers with basic 0-10V dimming range allowed- deduct
			ALL LED LINEAR IS TO BE FIELD VERIFIED BEFORE ORDERING
EL	5	BEGA	99856-BLK LED MODULE
EL	5	BEGA	99626-BLK BOLLARD TUBE
EL	5	BEGA	79818 A/B & TEMPLATE
RQ	2	LINEAR LIGHTING	WW4-D-1-ET5-277-NS-R-BW-EM-4'
EF36	9	CREE	PWY-EDG-3M-P3-02-E-UL-BZ-525-40K
EF36	9	CREE	CS047S01



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Toll Free: 1-800-325-0963

GUARANTEE ELECTRICAL CONTRACTORS
JOB: WEBSTER ISB
PO# 505555-11317 PC 13

TYPE	QTY ORDERED	MANUFACTURER	CATALOG NUMBER
EF36	27	CREE	CZ076X01RD
EF42	3	CREE	PWY-EDG-3M-P4-02-E-UL-BZ-525-40K
EF42	3	CREE	CREE-CS047S01 TEMPLT BXPB PATHWAY TYPE EF 36/42 TEMPLATE .
EF42	9	CREE	CREE-CZ076X01RD ANCH BLT 3/8-16X6+1.25GA TYPE EF36/42 ANCHOR BOLTS .
EK (ASI 039)	3	VISA	VISA-OW2480-L30K-H-MVOLT-GLIM MULLION MOUNT W/ REMOTE POWER SUPPLY
SA	12	LED LINEAR	LEDLIN-XOOLINE-HYD-LD25-830/1880 -DL-C002-IP40 (6.16') LED-LINEAR IN ALUM. PROFILE *** Non-Stock ***
SA	2	LED LINEAR	LEDLIN-CUSTOM-XOOLINE-HYD-LD25- 830/1380-DL-C002-IP40 (4.52') LED-LINEAR IN ALUM. PROFILE *** Non-Stock ***
SA	10	LED LINEAR	LEDLIN-XOOLINE-HYD-LD25-830/0380 -DL-C002-IP40 (1.24')LED-LINEAR IN ALUM. PROFILE *** Non-Stock ***
SA	16	LED LINEAR	LEDLIN-XOOLINE-HYD-LD25-830/1255 -DL-C002-IP40 (4.11')LED-LINEAR IN ALUM. PROFILE *** Non-Stock ***
SA	68	LED LINEAR	LEDLIN-CUSTOM-XOOLINE-HYD-L25- 830/0880-DL-C002-IP40 (2.88')LED-LINEAR IN ALUMN. PROFILE *** Non-Stock ***
SA	7	LED LINEAR	LEDLIN-XOOLINE-HYD-LD25-830/0630 -DL-C002-IP40 (2.06')LED-LINEAR IN ALUMN. PROFILE *** Non-Stock ***
SA	50	LED LINEAR	LEDLIN-15000142-F-FEED-2METER *** Non-Stock ***
SA	50	LED LINEAR	LEDLIN-15000218 VARIOCON FEMALE MINI PROTECTION CAP MONO IP67 *** Non-Stock ***
SA	1	LED LINEAR	HLG-40-H-24A
SA	14	LED LINEAR	HLG-60-H-24A
SA	32	LED LINEAR	HLG-80H-24A
SA	2	LED LINEAR	HLG-100H-24A
SA	49	LED LINEAR	LINEAR DRIVER CD-211D-LG
SA	115	LED LINEAR	LEDLIN-ADJUSTABLE.MOUNT.BRACKET 002/004(SET OF 2)
SA	15	LED LINEAR	LEDLIN-VARIOCON.EXTENSION.MINI 2X.034MM2 0.1M IP67 *** Non-Stock ***
EB-17	2	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1269MM-IP67-IN-003 W/60DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMAIL BLACK CONNECT TYPE EB-17 . *** Non-Stock ***
EB-17	2	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1268MM-IP67-IN-003-W/60DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-17 .
EB-17	16	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-17 .
EB-17	1	LED LINEAR	SSLTG-HLG-60-H-24A 60W 24V LED DRIVER 90-305(ON/OFF) TYPE EB-17 ,
EB-17	1	LED LINEAR	LEDLIN-DC211D-LG LINEAR DRIVE LED LIGHTING TYPE EB-17 .
EB-19-5	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1894MM-IP67-IN-003 W/60 DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMALE BLACK CONNECT TYPE EB-19-5 .
EB-19-5	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1894MM-IP67-IN-003 W/60DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-19-5 .
EB-19-5	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1894MM-IP67-IN-003 W/60DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END ONLY TYPE EB-19-5 .



VILLA LIGHTING SUPPLY
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GUARANTEE ELECTRICAL CONTRACTORS
JOB: WEBSTER ISB
PO# 505555-11317 PC 13

TYPE	QTY ORDERED	MANUFACTURER	CATALOG NUMBER
EB-19-5	1	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-19-5 .
EB-19-5	1	LED LINEAR	SSLTG-HLG-80-H-24A 80W 24V LED DRIVER 90-305(ON/OFF) TYPE EB-19-5 .
EB-19-5	1	LED LINEAR	LEDLIN-LINEAR.DRIVE.DC.211D-LG LN211D1-LG TYPE EB-19-5 .
EB-15-9	3	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1519MM-IP67-IN-003 W/60DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMALE BLACK CONNECT TYPE EB-15-9 .
EB-15-9	3	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1644MM-IP67-IN-003 W/60DEG DIFFUSE LENS TYPE EB-15-9 .
EB-15-9	3	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1519MM-IP67-IN-003 W/60 DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-15-9 .
EB-15-9	45	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-15-9 .
EB-15-9	3	LED LINEAR	SSLTG-HLG-60-H-24A 60W 24V LED DRIVER 90-305(ON/OFF) TYPE EB-15-9 .
EB-15-9	3	LED LINEAR	LEDLIN-LINEAR.DRIVE.DC.211D-LG LN211D1-LG TYPE EB-15-9 .
EB-13-6	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10-W825/139 4MM-IP67-IN-003 W/60DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMALE BLACK CONNECT TYPE EB-13-6 . *** Non-Stock ***
EB-13-6	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10-W825/126 9MM-IP67-IN-003 W/60 DIFUSE LENS TYPE EB-13-6 .
EB-13-6	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1394MM-IP67-IN-003 W/60 DEG DIFFUSE LENS TYPE EB-13-6 .
EB-13-6	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1394MM-IP67-IN-003 W/ 60 DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-13-6 .
EB-13-6	12	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-13-6 .
EB-13-6	1	LED LINEAR	SSLTG-HLG-60-H-24A 60W 24V LED DRIVER 90-305(ON/OFF) TYPE EB-13-6 ,
EB-13-6	1	LED LINEAR	LEDLIN-LINEAR.DRIVE.DC.211D-LG LN211D1-LG TYPE EB-13-6 .
EB-11-1	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1644MM-IP67-IN-003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMALE BLACK CONNECT TYPE EB-11-1 .
EB-11-1	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1644MM-IP67-IN-003 W/ 60 DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-11-1 .
EB-11-1	10	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-11-1 .
EB-11-1	1	LED LINEAR	SSLTG-HLG-60-H-24A 60W 24V LED DRIVER 90-305(ON/OFF) TYPE EB-11-1 .
EB-11-1	1	LED LINEAR	LEDLIN-LINEAR.DRIVE.DC.211D-LG LN211D1-LG TYPE EB-11-1 .
EB-15-6	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1519MM-IP67-IN-003 W/60DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMALE BLACK CONNECT TYPE EB-15-6 .
EB-15-6	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1644MM-IP67-IN-003 W/60DEG DIFFUSE LENS TYPE EB-15-6 .
EB-15-6	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1519MM-IP67-IN-003 W/60 DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-15-6 .
EB-15-6	15	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-15-6 .
EB-15-6	1	LED LINEAR	SSLTG-HLG-60-H-24A 60W 24V LED DRIVER 90-305(ON/OFF) TYPE EB-15-6 .
EB-15-6	1	LED LINEAR	LEDLIN-LINEAR.DRIVE.DC.211D-LG LN211D1-LG TYPE EB-15-6 .
EB-15-10	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1644MM-IP67-IN-003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMALE BLACK CONNECT TYPE EB-15-10 .



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GUARANTEE ELECTRICAL CONTRACTORS
JOB: WEBSTER ISB
PO# 505555-11317 PC 13

TYPE	QTY ORDERED	MANUFACTURER	CATALOG NUMBER
EB-15-10	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10 W825/1519MM-IP67-IN-003 W/ 60DEG DIFFUSE LENS TYPE EB-15-10 .
EB-15-10	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1644MM-IP67-IN-003 W/ 60 DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-15-10 .
EB-15-10	15	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-15-10 .
EB-15-10	1	LED LINEAR	SSLTG-HLG-60-H-24A 60W 24V LED DRIVER 90-305(ON/OFF) TYPE EB-15-10 .
EB-15-10	1	LED LINEAR	LEDLIN-LINEAR.DRIVE.DC.211D-LG LN211D1-LG TYPE EB-15-10 .
EB-15-7	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1519MM-IP67-IN-003 W/60DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMALE BLACK CONNECT TYPE EB-15-7 .
EB-15-7	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1644MM-IP67-IN-003 W/60DEG DIFFUSE LENS TYPE EB-15-7 .
EB-15-7	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1519MM-IP67-IN-003 W/60 DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-15-7 .
EB-15-7	15	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-15-7 .
EB-15-7	1	LED LINEAR	SSLTG-HLG-60-H-24A 60W 24V LED DRIVER 90-305(ON/OFF) TYPE EB-15-7 .
EB-15-7	1	LED LINEAR	LEDLIN-LINEAR.DRIVE.DC.211D-LG LN211D1-LG TYPE EB-15-7 .
EB-14-6	2	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10-W825/139 4MM-IP67-IN-003 W/60DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMALE BLACK CONNECT TYPE EB-14-6 .
EB-14-6	2	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10 W825/1519MM-IP67-IN-003 W/ 60DEG DIFFUSE LENS TYPE EB-14-6 .
EB-14-6	2	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1394MM-IP67-IN-003 W/ 60 DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-14-6 .
EB-14-6	24	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-14-6 .
EB-14-6	2	LED LINEAR	SSLTG-HLG-60-H-24A 60W 24V LED DRIVER 90-305(ON/OFF) TYPE EB-14-6 .
EB-14-6	2	LED LINEAR	LEDLIN-LINEAR.DRIVE.DC.211D-LG LN211D1-LG TYPE EB-14-6 .
EB-9-8	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10-W825/139 4MM-IP67-IN-003 W/60DEG DIFFUSE LENS, 500MM BLACK OPEN ON ONE END AND FEMALE BLACK CONNECT TYPE EB-9-8 .
EB-9-8	1	LED LINEAR	LEDLIN-VARIOLED-HYDRA-LD10- W825/1519MM-IP67-IN-003 W/60 DEG DIFFUSE LENS, MALE BLACK CONNECT ONLY TYPE EB-9-8 .
EB-9-8	8	LED LINEAR	LEDLIN-13000006-45 45D MOUNTING CLIPS TYPE EB-9-8 .
EB-9-8	1	LED LINEAR	SSLTG-HLG-40-H-24A 40W 24V LED DRIVER 90-305VAC(ON/OFF) TYPE EB-9-8 .
EB-9-8	1	LED LINEAR	LEDLIN-LINEAR.DRIVE.DC.211D-LG LN211D1-LG TYPE EB-9-8 .
EB	300	LED LINEAR	LEDLIN-14000030 VARIO CABEL MONO 2X 0.34MM2 IP68 15 X 6M PIECES *** Non-Stock ***
BA-ALT	1	DADO	DADO-H-HL25-ZAML3-30-I-W-R-S-Z40FC-RT90-44FC-WHE-IN-CL2P507R-X-D010-UNV - HardLine 2.5" with 9.8W/ft 3000K LED (direct view multi-row LED). Stairwell pattern, L shape 240"x44" ft. White finish on entire housing, with (1) Right Turn & 50ft feed cables. Includes 0-10V dimmable remote power supply in NEMA enclosure.
BA-ALT	1	DADO	DADO-H-HL25-ZAML3-30-I-W-R-S-Z40FC-RT90-44FC-CL148-162FC-OC211-24FC-WHE-IN-CL2P507R-X-D010-UNV - HardLine 2.5" with 9.8W/ft 3000K LED (direct view multi-row LED). Stairwell pattern, (4) Field cuttable sections 39.25 ft total length, White finish on entire housing. with (1) Right Turn, (1) Inside Corner and (1) Outside Corner. 5.50ft feed cables. Includes 0-10V dimmable remote power supply in NEMA enclosure.
BA-ALT	1	DADO	H-HL25-ZAML3-30-I-W-R-S-Z40FC-RT90-44FC-CL148-162FC-OC211-24FC-WHE-IN-CL2P507R-X-D010-UNV - HardLine 2.5" with 9.8W/ft 3000K LED (direct view multi-row LED). Stairwell pattern, (4) Field cuttable sections 39.25 ft total length, White finish on entire housing. with (1) Right Turn, (1) Inside Corner and (1) Outside Corner. 5.50ft feed cables. Includes 0-10V dimmable remote power supply in NEMA enclosure.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

700BCALDY-S-LED830-277

Notes: satin nickel

Type:**BB2**

LAI16-104794

BATH COLLECTION**Alden Bath****DESCRIPTION**

Dual linear acrylic shades providing both task and ambient light are accented by a minimal metal body and sleek metal endcaps in the Alden bath light fixture from Tech Lighting. Includes two GX24Q-2 base 18 watt triple tube compact fluorescent lamps (electronic ballast included) or 20 watt, 1200 net lumen, 3000K LED modules. LED version dimmable with low-voltage electronic dimmer. May be mounted horizontally or vertically. ADA compliant.

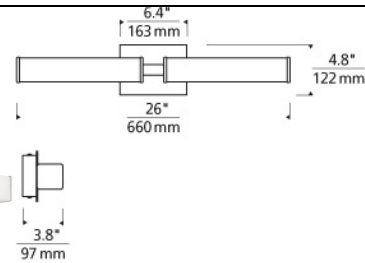
INSTALLATION

This product can mount to either a 4" square electrical box with round plaster ring or an octagonal electrical box. May be mounted horizontally or vertically. For wall mount use only.

WEIGHT

4.03lb / 1.83kg ±

acrylic



bronze

chrome

satin nickel

ORDERING INFORMATION

700BCALD	COLOR	FINISH	LAMP
Y	ACRYLIC	Z ANTIQUE BRONZE	-CF COMPACT FLUORESCENT 120V
C	CHROME	S SATIN NICKEL	-CF277 COMPACT FLUORESCENT 277V
			-LED830 LED 80 CRI 3000K 120V
			-LED830-277 LED 80 CRI 3000K 277V

**TECH LIGHTING®**

7400 Linder Avenue
Skokie, Illinois 60077

T 847.410.4400
F 847.410.4500

Tech Lighting, L.L.C.

700BCALD _____

FIXTURE TYPE: _____

JOB NAME: _____

NOTES: _____



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Tech Lighting reserves the right to change specifications for product improvements without notification.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

VIA4WDI-HLO-LED-80-750-750-30-15'-
UNV-D-1-DMB-W -(REMOTE DRIVERS)

Notes: REMOTE DRIVER

Type:**BC15**

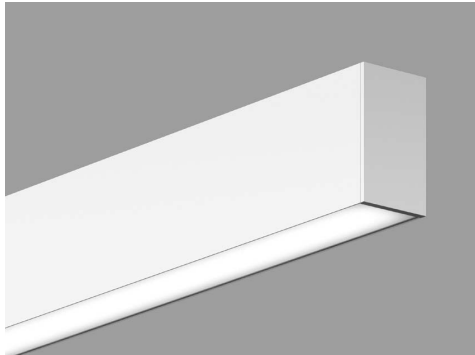
LAI16-104794

VIA 4 LED

WALL DIRECT/INDIRECT



LUMENWERX
WWW.LUMENWERX.COM



Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.

PROJECT: _____

TYPE: _____

NOTES: _____

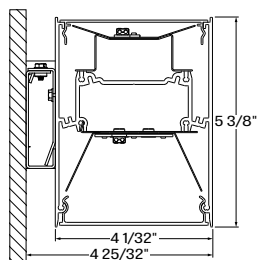
**ORDER GUIDE****up to 118 lm/w performance**

VIA4WDI	HLO	LED			
LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES	INDIRECT LUMEN PACKAGES
VIA4WDI - via 4" wall direct/indirect	HLO - High-Efficiency Lambertian Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft	500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory

	15'			
COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
30 - 3000k 35 - 3500k 40 - 4000k	Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits + #EB - emergency battery pack (for min 4' fixture) + #EM - emergency light circuit + #NL - night light circuit + GTD - generator transfer device

DMB			
MOUNTING	FINISH	CONTROLS	OPTIONS
DMB - drywall mounting bracket	W - matte white AL - aluminum B - matte black CF# - custom finish specify RAL#	ONBOARD OMS - Motion Sensor & power pack ODS - Daylight Sensor & controller WIRELESS EWC - EnOcean Wireless Controller LMC - Lutron Motion Controller LDC - Lutron Daylight Controller	FU - fuse DC - dust cover CU - custom REMOTE DRIVER

See page 2 for ordering code detailed information

CROSS SECTION

VIA4WDI - wall

OPTICS

HLO - High-efficiency Lambertian Optic

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

VIA4WDI-HLO-LED-80-750-750-30-15'-
UNV-D-1-DMB-W -(REMOTE DRIVERS)

Notes: REMOTE DRIVER

Type:**BC15**

LAI16-104794

VIA 4 LED**WALL DIRECT/INDIRECT****OPTICS**

HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO) - Matte white side reflectors combined with High-Efficiency Lambertian Optic (HLO) shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration. Luminaire brightness is controlled by the flux-to-shielding area ratio.

LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K**High Indirect Output (3000 Lumens)**

LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
low output	4000K	42	2000	3000	5000	118
medium output	4000K	53	3000	3000	6000	114
high output	4000K	63	4000	3000	7000	111
ultra high output	4000K	72	4800	3000	7800	108

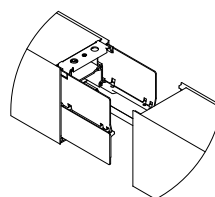
Low Indirect Output (2000 Lumens)

LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
low output	4000K	34	2000	2000	4000	118
medium output	4000K	44	3000	2000	5000	114
high output	4000K	55	4000	2000	6000	109
ultra high output	4000K	64	4800	2000	6800	107

LUMINAIRE LENGTH

Via 4 is made up of standard 2, 3, 4, 5, 8 and 12 foot sections that may be joined together to create longer continuous run lengths. Exact run length must be noted in the product code. The minimum individual section available is 2 foot, and continuous run lengths can be ordered in 2 inch increments.

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.



joining system Via 4
direct/indirect

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator; minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

MOUNTING OPTIONS

Fixtures may be horizontally mounted to the wall using a bracket. For long runs, a minimum of 6" from adjacent walls is required.

FINISH

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white, matte black or silver powder coating.

Custom finishes are also available.

CONTROLS

LumenWerx offers several options for integrating motion and daylight controls into Via 4 luminaires. Wireless options incorporate a wireless controller/powerpack into the luminaire, which receives signals from a wireless sensor (by others) installed in the space. The advantages of the wireless option include greater flexibility of control options, sensor coverage and system integration. Onboard options incorporate both the sensor and controller/powerpack. Onboard sensors, while inherently simpler, have limitations of control and coverage.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

VIA4WDI-HLO-LED-80-750-750-30-15'-
UNV-D-1-DMB-W -(REMOTE DRIVERS)

Notes: REMOTE DRIVER

Type:

BC15

LAI16-104794

VIA 4 LED

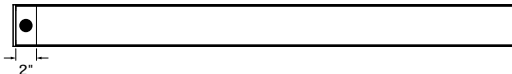
WALL DIRECT/INDIRECT

LUMENWERX
WWW.LUMENWERX.COM

Onboard

Onboard Motion Sensor and **power pack (OMS)** provide automatic on and automatic off control, using PIR detection. Sensor is designed to detect fine-motion when installed within 6' of occupants.

Onboard Daylight Sensor and **controller (ODS)** provide input for 0-10V dimming drivers. Separate switched control of line input is required for on/off control.



Location of an Onboard sensor

Wireless

EnOcean Wireless Controller (EWC) provides both a power pack for presence detection control and a 0-10V interface for daylight harvesting. EnOcean wireless sensors (by others) mounted in the room signal the onboard EWC. This option permits manual on/automatic off (vacancy) control.

Lutron Motion Controller (LMC) and **Lutron Daylight Controller (LDC)** provide inputs to Ecosystem drivers. Compatible Lutron wireless motion and daylight sensors (by others) mounted in the room signal onboard LPC or LDC. This option permits manual on/automatic off (vacancy) control.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal)

Reflectors - Cold rolled steel 0.024" thick precisely die formed, 95% reflective matte white painted

End caps - Die cast Aluminum (0.95" nominal)

WEIGHT

Via 4 4ft - 13.66lbs - 6.2kg

Via 4 8ft - 27.53lbs - 12.5kg

Via 4 12ft - 41.41lbs - 18.8kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

DLC - Testing to DLC requirements, for this product, have been completed by an Accredited Laboratory and certified by DLC.

Lighting facts - testing products and reporting performance results according to industry standards.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

VIA4WDI-HLO-LED-80-750-750-30-15'-
UNV-D-1-DMB-W -(REMOTE DRIVERS)

Notes: REMOTE DRIVER

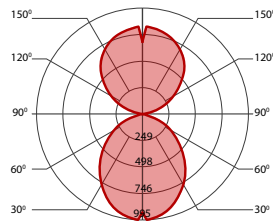
Type:**BC15**

LAI16-104794

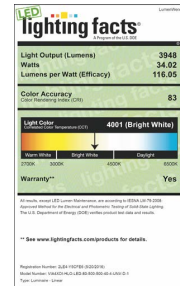
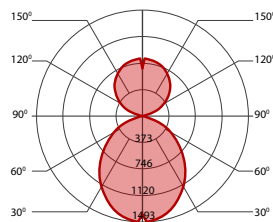
VIA 4 LED

WALL DIRECT/INDIRECT

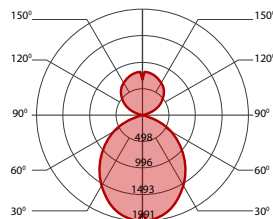
LUMENWERX
WWW.LUMENWERX.COM

PERFORMANCE AT INDIRECT 500 LUMEN PER FOOT**500 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

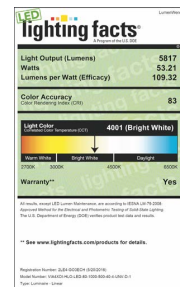
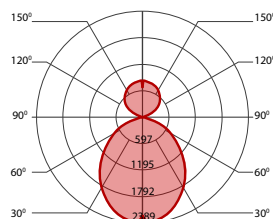
LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
low output	3000K	36	2000	2000	4000	110
low output	3500K	35	2000	2000	4000	114
low output	4000K	34	2000	2000	4000	118

**750 LUMEN AT 80CRI - MEDIUM OUTPUT****PERFORMANCE PER 4'**

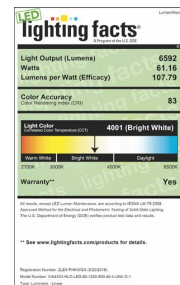
LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	47	3000	2000	5000	107
medium output	3500K	45	3000	2000	5000	110
medium output	4000K	44	3000	2000	5000	114

**1000 LUMEN AT 80CRI - HIGH OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
high output	3000K	58	4000	2000	6000	103
high output	3500K	60	4000	2000	6000	106
high output	4000K	55	4000	2000	6000	109

**1200 LUMEN AT 80CRI - ULTRA HIGH OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
ultra high output	3000K	68	4800	2000	6800	100
ultra high output	3500K	65	4800	2000	6800	104
ultra high output	4000K	64	4800	2000	6800	107



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

VIA4WDI-HLO-LED-80-750-750-30-15'-
UNV-D-1-DMB-W -(REMOTE DRIVERS)

Notes: REMOTE DRIVER

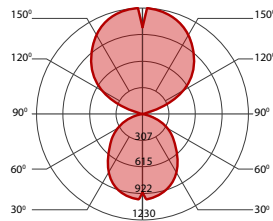
Type:**BC15**

LAI16-104794

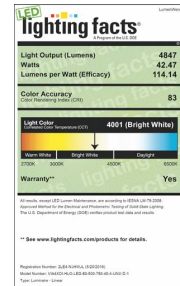
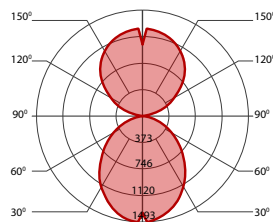
VIA 4 LED

WALL DIRECT/INDIRECT

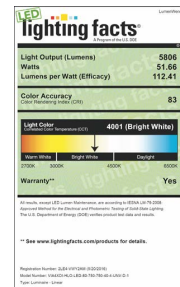
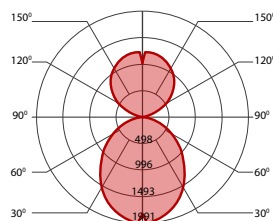
LUMENWERX
WWW.LUMENWERX.COM

PERFORMANCE AT INDIRECT 750 LUMEN PER FOOT**500 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

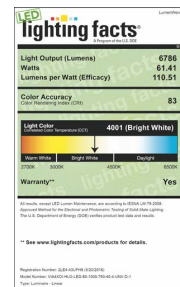
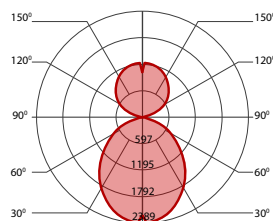
LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
low output	3000K	45	2000	3000	5000	110
low output	3500K	44	2000	3000	5000	114
low output	4000K	42	2000	3000	5000	118

**750 LUMEN AT 80CRI - MEDIUM OUTPUT****PERFORMANCE PER 4'**

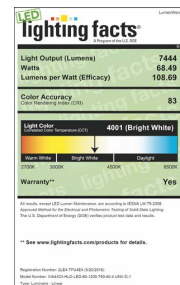
LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28	3000	3000	6000	107
medium output	3500K	54	3000	3000	6000	111
medium output	4000K	53	3000	3000	6000	114

**1000 LUMEN AT 80CRI - HIGH OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
high output	3000K	67	4000	3000	7000	104
high output	3500K	65	4000	3000	7000	107
high output	4000K	63	4000	3000	7000	111

**1200 LUMEN AT 80CRI - ULTRA HIGH OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Direct Lumens	Indirect Lumens	Total Nominal Delivered Lumens	Efficacy LPW
ultra high output	3000K	76	4800	3000	7800	102
ultra high output	3500K	74	4800	3000	7800	105
ultra high output	4000K	72	4800	3000	7800	108



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

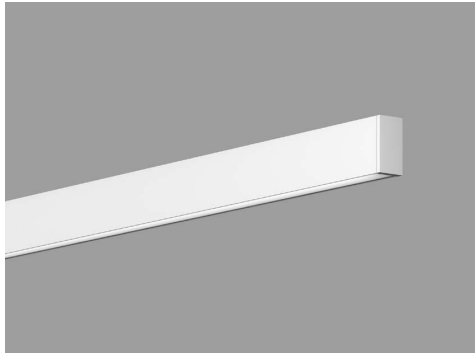
VIA1.5S-HLO-LED-80-400-30-4FT-
277-D(1%)-1-DRC-W Notes: Providing
equal not specified

Type:**CA**

LAI16-104794

VIA1.5 LED**SURFACE**

LUMENWERX
WWW.LUMENWERX.COM



Shown with HLO optics

DESCRIPTION

Via 1.5 is the elegant, ultra-compact and flexible linear LED luminaire system for pendant, surface, and recessed or in-wall installation, whether as discrete luminaires, continuous runs, or patterns.

Via 1.5 features numerous optical configurations, which are difficult to achieve in such a compact luminaire. See separate spec sheets for patterns and other available mountings.

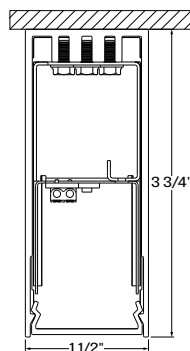
PROJECT: _____**TYPE:** _____**NOTES:** _____**ORDER GUIDE**

VIA1.5S	HLO	LED		400 - 400 LM/FT	
LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
VIA1.5S - via 1.5" surface	HLO - High-Efficiency Lambertian Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	350 - low output 350lm/ft 500 - med. output 500lm/ft 750 - high output 750lm/ft	30 - 3000k 35 - 3500k 40 - 4000k

4'		ELDOLED DRIVER	
LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + #EB - emergency battery pack (for min 4' fixture) + #EM - emergency light circuit + #NL - night light circuit

MOUNTING	FINISH	CONTROLS	OPTIONS
GRD - grid ceiling DRC - drywall ceiling OHC - other ceiling (specify)	W - matte white AL - aluminum CF# - custom finish specify RAL#	WIRELESS EWC - EnOcean Wireless Controller LMC - Lutron Motion Controller LDC - Lutron Daylight Controller	FU - fuse TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip CU - custom

See page 2 for ordering code detailed information

CROSS SECTION

VIA1.5S - surface

OPTICS

HLO - High-efficiency Lambertian Optic

File Name: VIA1.5.SURFACE.SPEC

Page: 1 / 4

April 3, 2016



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

VIA1.5S-HLO-LED-80-400-30-4FT-
277-D(1%)-1-DRC-W Notes: Providing
equal not specified

Type:

CA

LAI16-104794

VIA 1.5 LED

SURFACE

**OPTICS**

HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO) - matte white side reflectors combined with High-Efficiency Lambertian Optic (HLO) shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration. Luminaire brightness is controlled by the flux-to-shielding area ratio.

LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

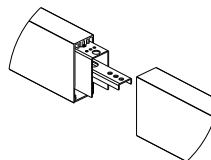
PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	17	1400	83
medium output	4000K	24	2000	82
high output	4000K	37	3000	81

LUMINAIRE LENGTH

Via 1.5 is made up of standard 2, 3, 4, 5, 8 and 12 foot sections that may be joined together to create longer continuous run lengths. Exact run length must be noted in the product code. The minimum individual section available is 2 foot.

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.



joining system for Via 1.5

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

MOUNTING OPTIONS

Fixtures can be mounted directly to T-Bar, drywall and hard surface ceilings, hardware supplied by others. Long runs require a minimum of 6" distance from the vertical wall.

FINISH

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating. Custom finishes are also available.

CONTROLS

LumenWerx offers several options for integrating occupancy and daylight controls into Via 1.5 luminaires. Wireless options incorporate a wireless controller/powerpack into the luminaire, which receives signals from a wireless sensor (by others) installed in the space. The advantages of the wireless option include greater flexibility of control options, sensor coverage and system integration.

Wireless

EnOcean Wireless Controller (EWC) provides both a power pack for presence detection control and a 0-10V interface for daylight harvesting. EnOcean wireless sensors (by others) mounted in the room signal the onboard EWC. This option permits manual on/automatic off (vacancy) control.

Lutron Motion Controller (LMC) and Lutron Daylight Controller (LDC) provide inputs to Ecosystem drivers. Compatible Lutron wireless motion and daylight sensors (by others) mounted in the room signal onboard LPC or LDC. This option permits manual on/automatic off (vacancy) control.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal)

Reflectors - Flat rolled Aluminum sheet 0.040" thick precisely die formed, 95% reflective matte white painted

End caps - Die cast Aluminum (0.95" nominal)

WEIGHT

Via 1.5 4ft - 7.16lbs - 3.25kg

Via 1.5 8ft - 14.32lbs - 6.5kg

Via 1.5 12ft - 21.48lbs - 9.75kg

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

VIA1.5S-HLO-LED-80-400-30-4FT-
277-D(1%)-1-DRC-W Notes: Providing
equal not specified

Type:**CA**

LAI16-104794

VIA 1.5 LED

SURFACE

**CERTIFICATIONS**

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Lighting facts - testing products and reporting performance results according to industry standards.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

VIA1.5S-HLO-LED-80-400-30-4FT-
277-D(1%)-1-DRC-W Notes: Providing
equal not specified

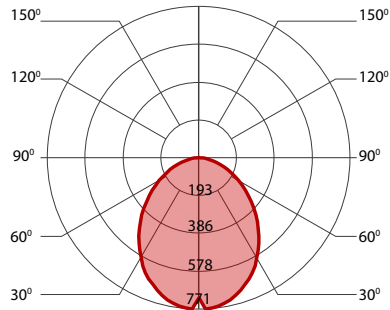
Type:**CA**

LAI16-104794

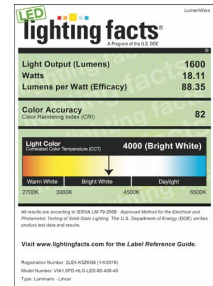
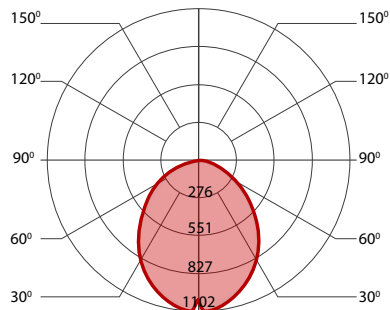
VIA1.5 LED

SURFACE

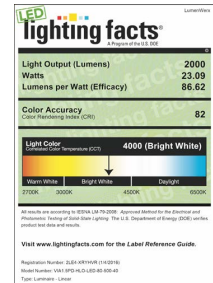
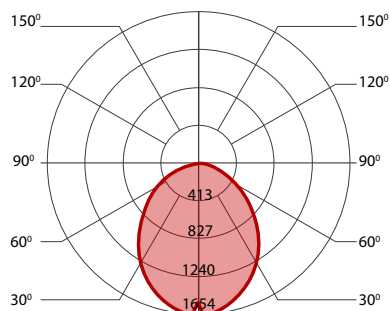
LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT**PERFORMANCE PER 4'**

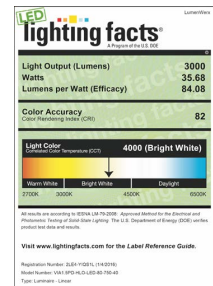
LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	18	1400	78
low output	3500K	17.5	1400	80
low output	4000K	17	1400	83

**500 LUMEN AT 80CRI - MEDIUM OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	26	2000	77
medium output	3500K	25	2000	79
medium output	4000K	24	2000	82

**750 LUMEN AT 80CRI - HIGH OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	39	3000	76
high output	3500K	38	3000	78
high output	4000K	37	3000	81



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

4VT2-LD4-4-DR-W-UNV-L835-WL-
TH-U

Notes: Providing equal not specified

Type:

CB

LAI16-104794

Metalux

DESCRIPTION

The Vaportite LED Series is an energy efficient industrial Vaportite fixture that features rugged and durable construction. The Vaportite LED incorporates a full metal fixture liner inside a reinforced fiberglass housing with a high impact diffuser. This Vaportite series is suitable for interior and exterior applications and can be surface or chain mounted.

The Vaportite LED Series has been designed for maximum operation in commercial institutional and industrial environments and can operate in a wide range of temperatures (-20°C to 25°C) and is ideal for cold storage environments.

SPECIFICATION FEATURES**Construction**

Fiberglass housing is reinforced polyester and self-extinguishing (ASTM-D635-74) plastic of a permanent pearl gray color. A watertite hub for 1/2" conduit entry is provided at each end of housing (standard) for continuous feed. Polyurethane gasketing is formed in the housing providing a continuous seamless seal for the diffuser. Four sturdy cam latches clamp diffuser tightly for a positive seal between housing, gasketing and diffuser. Electrical components and fixtures are UL/ cUL listed for Wet Locations.

Electrical

Long-Life LED system coupled with electrical driver to deliver optimal performance. LED's available in 3500, 4000 and 5000K with a CRI ≥ 85. Projected life is 60,000 hours at 91% lumen output. cULus listed. Electronic drivers are available for 120-277V applications. A 0-10V dimming control is available (standard). IP65 rated and NSF certified (4' only).

Lens

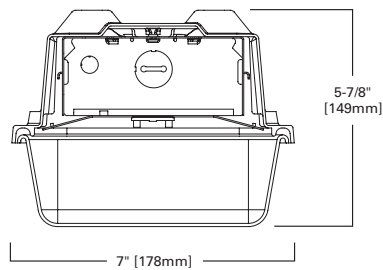
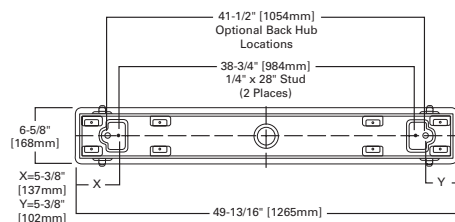
DR=Internal Prismatic Lens/15% DR High Impact Additive.
DR100=Internal Prismatic Lens/100% DR High Impact Additive.

Warranty

Vaportite LED features a five year limited warranty.

Compliance

DesignLights Consortium™ Qualified and classified for DLC Standard (some models are not DLC qualified), refer to www.designlights.org for details.

**MOUNTING DATA****INSTALLATION DATA****MOUNTING BRACKETS**

Furnished
Two per 2' and 4' Unit
Four per 8' Unit

**OPTIONAL CHAN HANGING SET
(VT2-CHAIN/SET-U)**

Includes 6 ft. of chain, 4 large S-Hooks and 4 small S-Hooks
Order One (1) Kit for each 2' or 4' Fixture



VAPORTITE LED

4' INDUSTRIAL LED LAMP

Vaportite Industrial
Refrigerated Case

**ENERGY DATA****Input Watts:**

4VT2-LD4-4 (4,000 lumens)=38W
4VT2-LD4-6 (6,000 lumens)=57.3W
4VT2-LD4-8 (8,000 lumens)=81.1W

LINEAR DISCONNECT

Safe and convenient means of
disconnecting power



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

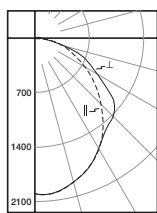
4VT2-LD4-4-DR-W-UNV-L835-WL-
TH-U

Notes: Providing equal not specified

Type:

CB

LAI16-104794

4' VAPORTITE LED**PHOTOMETRICS**

**4VT2-LD4-6-DR-
UNV-L835-CD1-U**

Electronic Driver

Linear LED 3500K

Spacing criterion:

(H) 1.2 x mounting

height, (L) 1.2 x

mounting height

Lumens: 5882

Input Watts: 56W

Efficacy: 104.7 lm/W

Test Report:

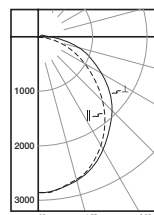
4VT2-LD4-6-DR-

UNV-L835-CD1-U.

IES

Candlepower

Angle	Along H	45°	Across L
0	2000	2000	2000
5	2007	1979	1980
10	1981	1951	1956
15	1930	1900	1903
20	1857	1836	1844
25	1764	1748	1765
30	1645	1646	1660
35	1511	1522	1534
40	1375	1393	1468
45	1221	1271	1438
50	1062	1207	1343
55	903	1175	1148
60	749	1048	933
65	600	1151	771
70	461	591	600
75	332	398	426
80	206	249	255
85	94	137	127
90	34	75	63



**4VT2-LD4-8-FR50-
UNV-L835-CD1-
WL-U**

Electronic Driver

Linear LED 3500K

Spacing criterion:

(H) 1.2 x mounting

height, (L) 1.3 x

mounting height

Lumens: 8553

Input Watts: 81W

Efficacy: 105.5 lm/W

Test Report:

4VT2-LD4-8-FR50-

UNV-L835-CD1-WL-

U.IES

Candlepower

Angle	Along H	45°	Across L
0	2854	2854	2854
5	2857	2829	2842
10	2811	2790	2804
15	2733	2723	2742
20	2626	2629	2658
25	2484	2508	2545
30	2316	2365	2408
35	2120	2195	2253
40	1904	2011	2086
45	1678	1819	1914
50	1451	1622	1736
55	1222	1422	1558
60	1009	1229	1368
65	810	1034	1171
70	622	843	959
75	446	659	748
80	287	487	555
85	148	341	392
90	45	228	271

Coefficients of Utilization

rc	Effective floor cavity reflectance								20%							
	80%				70%				50%				30%			
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
RCR	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101
1	108	103	98	94	105	101	96	93	96	93	90	92	89	87	88	86
2	98	89	82	76	95	87	81	75	84	78	73	80	75	71	77	73
3	89	78	70	63	86	76	69	62	73	67	61	70	65	60	68	63
4	81	69	60	53	79	68	59	53	65	58	52	62	56	51	60	55
5	75	62	52	46	73	60	52	45	58	51	45	56	49	44	54	48
6	69	55	46	40	67	54	46	40	52	45	39	51	44	39	49	43
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	38
8	59	46	37	31	58	45	37	31	44	36	31	42	35	31	41	35
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1536	26.1
0-40	2490	42.3
0-60	4463	75.9
0-90	5804	98.7
0-180	5882	100.0

Coefficients of Utilization

rc	Effective floor cavity reflectance								20%							
	80%				70%				50%				30%			
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
RCR	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4
0	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99
1	107	102	97	93	104	99	95	91	94	91	87	90	87	84	85	83
2	97	88	81	75	94	86	79	74	82	76	72	78	73	69	74	67
3	88	77	69	62	85	75	68	61	72	65	60	69	63	58	66	57
4	81	68	59	53	78	67	58	52	64	57	51	61	55	50	59	53
5	74	61	52	45	72	60	51	45	57	50	44	55	48	43	53	47
6	69	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42
7	64	50	41	35	62	49	41	35	47	40	34	45	39	34	44	38
8	59	46	37	31	57	45	37	31	43	36	30	42	35	30	40	34
9	55	42	34	28	54	41	33	28	40	32	27	38	32	27	37	31
10	52	39	31	25	50	38	30	25	37	30	25	36	29	25	34	29

Zonal Lumen Summary

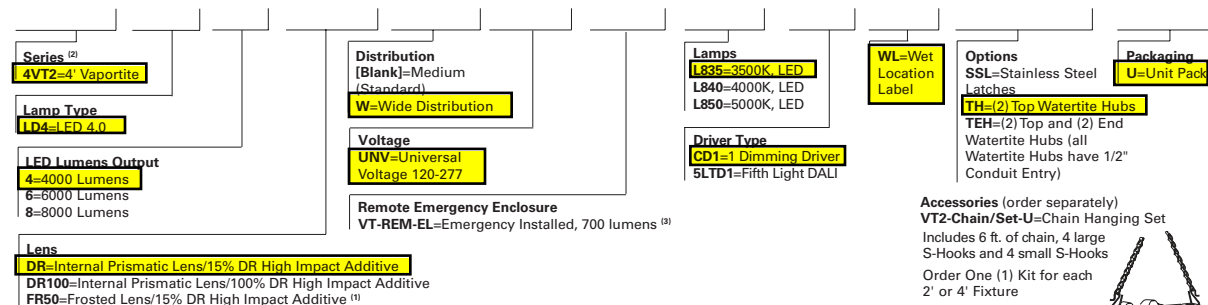
Zone	Lumens	% Fixture
0-30	2200	25.7
0-40	3573	41.8
0-60	6232	96.4
0-90	8248	100.0
0-180	8553	100.0

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours)	Theoretical L70 (Hours)
25°C	> 91%	> 247,000

ORDERING INFORMATION

SAMPLE NUMBER: 4VT2-LD4-4-DR-UNV-L840-CD1-WL-U



NOTES: (1) Not available in wide distribution. (2) DesignLights Consortium™ Qualified and classified for DLC Standard (some models are not DLC qualified), refer to www.designlights.org for details. (3) EL must specify 120 or 277V only.

Specifications & dimensions subject to change without notice. Consult your Eaton Representative for availability and ordering information.

Accessories (order separately)

VT2-Chain/Set-U=Chain Hanging Set

Includes 6 ft. of chain, 4 large

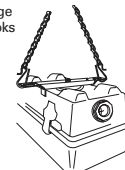
S-Hooks and 4 small S-Hooks

Order One (1) Kit for each

2' or 4' Fixture

VT2-SS-MBK=Stainless

Steel Mounting Bracket

**SHIPPING DATA**

Catalog No.	Wt.
4VT2-LD4	18 lbs.

Sheet No.	Sheet Name
1	COVER PAGE (DFS1)
2	161-0917-01
3	161-0917-02

Revision History		
Rev	Date	Description
1	11/18/2016	Initial Approval Drawings
2	1/16/2017	Customer Revision
3	6/6/2017	Customer Revision

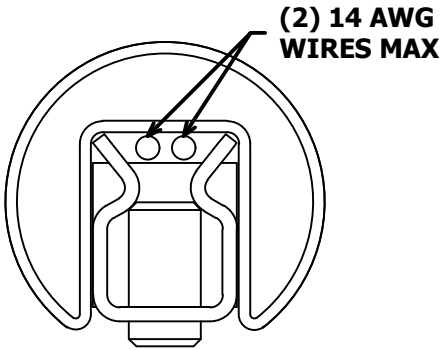
GENERAL NOTES:

Material: 304 Stainless
Finish: #4
Mounting Type: Embed
Epoxy: 1 - 50 mL

Level-offs and Returns are round pipe/tube unless otherwise noted.

Circled Dimensions are Assumed

CAPRAIL DETAIL



CRITICAL DIMENSIONS TO BE VERIFIED

- ___ Tread Rise
- ___ Tread Depth
- ___ Tread Quantity (Number of times you lift your foot)
- ___ Nose to Nose
- ___ Ramp Height
- ___ Ramp Length
- ___ Overall Lengths
- ___ Wireway / Feed Locations (If applicable)

CODE APPROVAL:

~~RAILS ARE DESIGNED TO THE REQUIREMENTS OF IBC 2012.~~

VERIFICATION OF LOCAL CODE COMPLIANCE IS THE RESPONSIBILITY OF THE CUSTOMER.

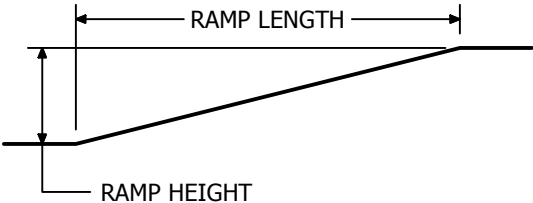
INSTALLATION:

ALL RAILING NEEDS TO BE INSTALLED BY A QUALIFIED HANDRAIL INSTALLER

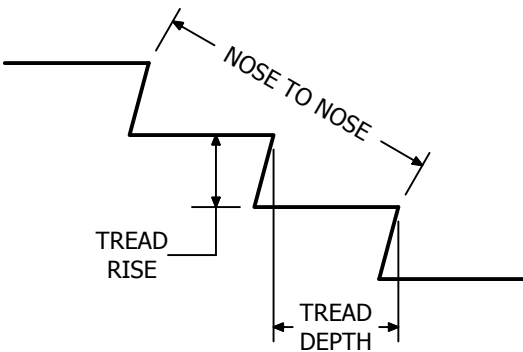
DRIVER REMOTE DISTANCE

- 7'-0" (2.1m) w/22 AWG
- 18'-0" (5.5m) w/18 AWG
- 46'-0" (14.0m) w/14 AWG
- 71'-0" (21.6m) w/12 AWG

RAMP DIMENSIONS



STAIR DIMENSIONS



JOB SPECIFIC NOTE:

RAILS DESIGNED PER CUSTOMER PROVIDED DIMENSIONS. CUSTOMER RESPONSIBLE FOR FIT, CODE COMPLIANCE, AND LOADING DATA.

FOR APPROVAL

- ☐ APPROVED AS IS - NO REVISIONS
- ☐ NOT APPROVED - REVISE PER MARKUPS AND RE-SUBMIT

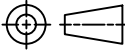
TO EXPEDITE THE REVISION PROCESS PLEASE MARK-UP AND RETURN THESE PRINTS

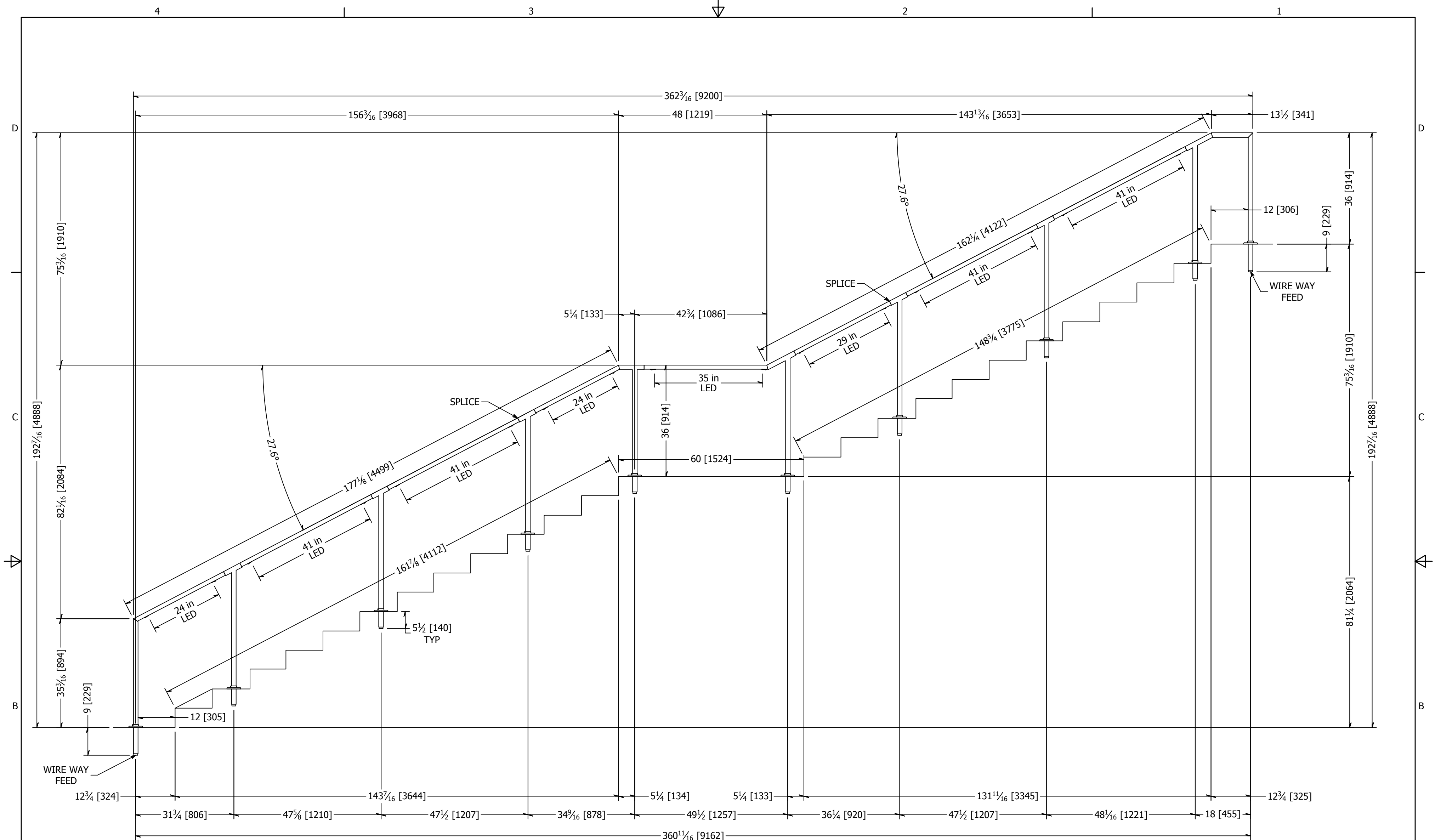
SIGNATURE: _____ DATE: _____

MANUFACTURING WILL NOT BEGIN UNTIL SIGNED APPROVAL DRAWINGS ARE RECEIVED FROM CUSTOMER

ARCHITECTURAL REVIEW / DESIGN INTENT ONLY

REVISIONS TO OVERALL DIMENSIONS WILL NOT BE MADE UNTIL FIELD MEASUREMENTS HAVE BEEN RECEIVED

TOLERANCE		FINISH:	DESCRIPTION:	
FRACTION: X/XX..... = ± 1/16" over 4ft. 16 FT RAIL EXAMPLE: 16 FT / 4 FT = 4 * 1/16" = 1/4" 16 FT RAIL..... = ± 1/4"		#4	WEBSTER UNIVERSITY	
DECIMAL: X.XX..... = ± .030 X.XXX..... = ± .010 UNLESS OTHERWISE NOTED		WEIGHT:	MATERIAL: 304 Stainless	 io LED Lighting Eaton Lighting Solutions 18001 E Colfax Ave Aurora, CO 80011
SHEET SIZE: B		PROJECTION: 	DATE: 6/7/2017 DRAWN BY: S. Frey	
JOB NUMBER: QMH72800ILLUM		SHEET: 1 OF 3	PART NUMBER: COVER PAGE (DFS1)	REV: 3



SOUTH COURTYARD STAIR - REF A0507.B

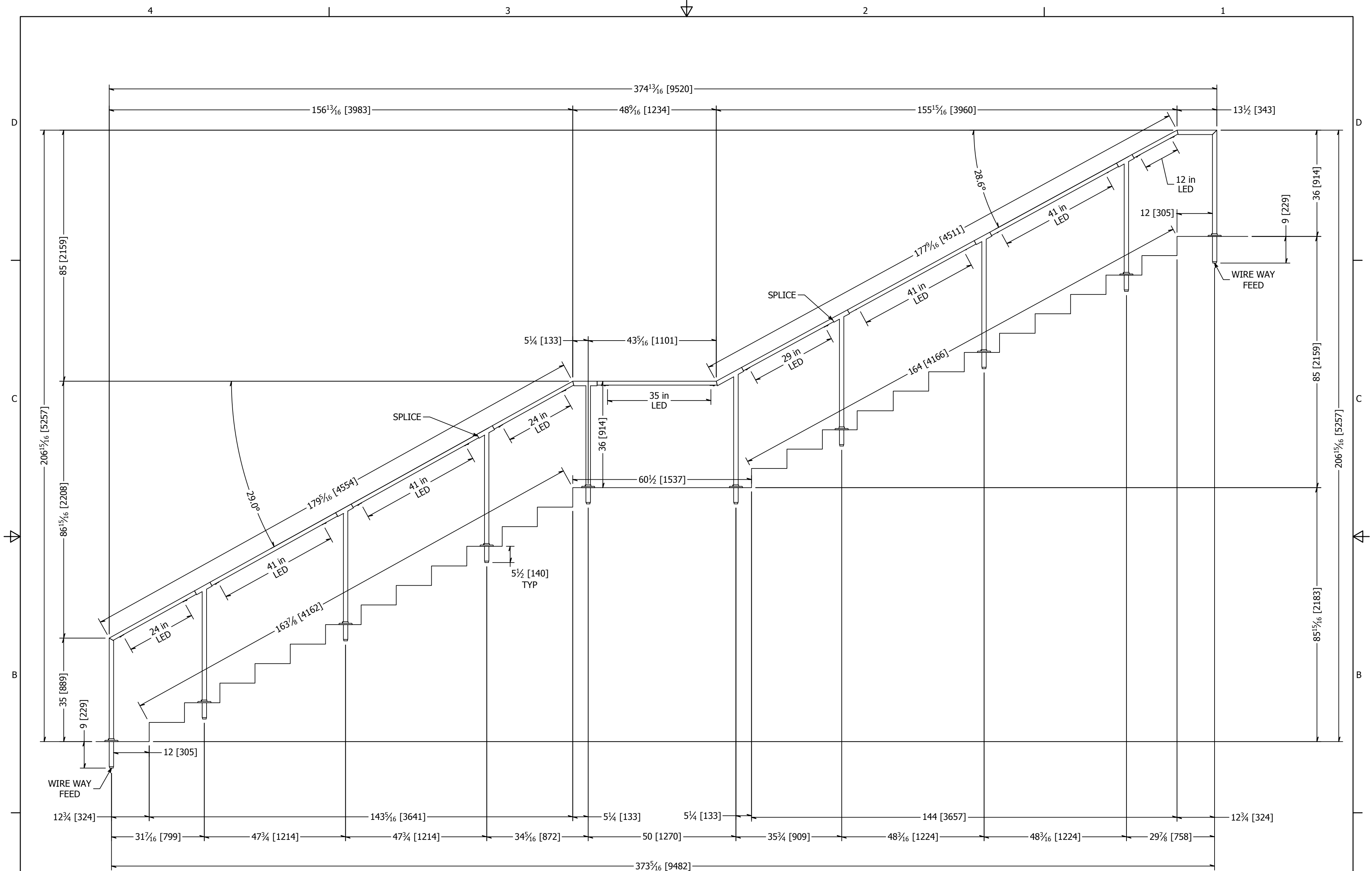
JOB SPECIFIC NOTE:
RAILS DESIGNED PER CUSTOMER PROVIDED DIMENSIONS.
CUSTOMER RESPONSIBLE FOR FIT, CODE COMPLIANCE, AND
LOADING DATA.

FOR APPROVAL	
☐	APPROVED AS IS - NO REVISIONS
☐	NOT APPROVED - REVISE PER MARKUPS AND RE-SUBMIT
TO EXPEDITE THE REVISION PROCESS PLEASE MARK-UP AND RETURN THESE PRINTS	
SIGNATURE:	DATE:
MANUFACTURING WILL NOT BEGIN UNTIL SIGNED APPROVAL DRAWINGS ARE RECEIVED FROM CUSTOMER	

ARCHITECTURAL REVIEW / DESIGN INTENT ONLY
REVISIONS TO OVERALL DIMENSIONS WILL NOT BE MADE UNTIL FIELD MEASUREMENTS HAVE BEEN RECEIVED

TOLERANCE		FINISH:	DESCRIPTION:	
FRACTION: X/XX..... = ± 1/16" over 4ft. 16 FT RAIL EXAMPLE: 16 FT / 4 FT = 4 * 1/16" = 1/4" 16 FT RAIL..... = ± 1/4"		#4	1.50" O.D. 316SS ILLUMINATED HANDRAIL	
DECIMAL: X.XX..... = ± .030 X.XXX..... = ± .010 UNLESS OTHERWISE NOTED		WEIGHT: N/A	MATERIAL: 304 Stainless	DATE: 6/7/2017
SHEET SIZE: C		SHEET: 2 OF 3	DRAWN BY: S. Frey	REV: 3
JOB NUMBER: QMH72800ILLUM		PART NUMBER: QMH72800ILLUM		

EATON io LED Lighting
Eaton Lighting Solutions
18001 E Colfax Ave
Aurora, CO 80011



WEST COURTYARD STAIR - REF A0508.A

JOB SPECIFIC NOTE:
RAILS DESIGNED PER CUSTOMER PROVIDED DIMENSIONS.
CUSTOMER RESPONSIBLE FOR FIT, CODE COMPLIANCE, AND
LOADING DATA.

FOR APPROVAL	
☐	APPROVED AS IS - NO REVISIONS
☐	NOT APPROVED - REVISE PER MARKUPS AND RE-SUBMIT
TO EXPEDITE THE REVISION PROCESS PLEASE MARK-UP AND RETURN THESE PRINTS	
SIGNATURE:	DATE:
MANUFACTURING WILL NOT BEGIN UNTIL SIGNED APPROVAL DRAWINGS ARE RECEIVED FROM CUSTOMER	

ARCHITECTURAL REVIEW / DESIGN INTENT ONLY
REVISIONS TO OVERALL DIMENSIONS WILL NOT BE MADE UNTIL FIELD MEASUREMENTS HAVE BEEN RECEIVED

TOLERANCE		FINISH:	DESCRIPTION:	
FRACTION: X/XX..... = ± 1/16" over 4ft. 16 FT RAIL EXAMPLE: 16 FT / 4 FT = 4 * 1/16" = 1/4" 16 FT RAIL..... = ± 1/4"		#4	1.50" O.D. 316SS ILLUMINATED HANDRAIL	
DECIMAL: X.XX..... = ± .030 X.XXX..... = ± .010 UNLESS OTHERWISE NOTED		WEIGHT: N/A	MATERIAL: 304 Stainless	DATE: 6/7/2017
		SHEET SIZE: C	PROJECTION: 	DRAWN BY: S. Frey
		JOB NUMBER: QM72800ILLUM	SHEET: 3 OF 3	PART NUMBER: 161-0917-02
		Eaton io LED Lighting Eaton Lighting Solutions 18001 E Colfax Ave Aurora, CO 80011		REV: 3

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(30) LOID-100/277-24-30K-DIM-ASL (30) PACBOX-
277V-24V-DIM (30) LOI-RBO-24-GRD (1) LOILC-10
(1) LOI-JBOX (29) LOIJC-10FT

Notes:

Type:**EE**

LAI16-104794

Specification Sheet**lumenfacade™**

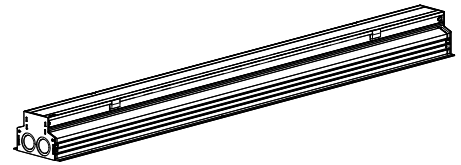
INGROUND
DIRECT VIEW
WHITE & STATIC COLORS

Client _____ Project name _____

Order# _____ Type _____ Qty _____

FEATURES AND BENEFITS**Physical :**

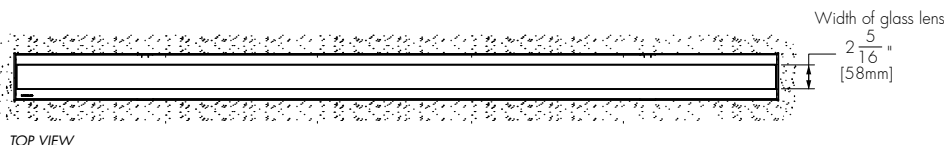
- Aluminum optical chamber housing
- Anodized aluminum flush trim
- Polymer recycled PVC blackout housing
- Available in 1', 2', 3' or 4' sections
- Die cast aluminum end caps
- Stainless steel hardware
- Frosted glass lens
- IP68 rated for up to 1' (30cm), not suitable for permanent immersion applications
- IK10 rated
- 1000kg max load, walk over only*

**IK10**lumen **talk**EcoSystem™
Enabled**Performance :**

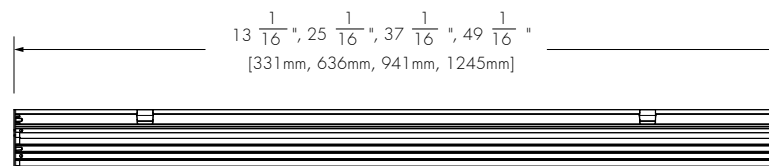
- lumen maintenance 80,000 hrs [L70 @ 25°C]
- lumen maintenance 60,000 hrs [L70 @ 50°C]
- Resolution per foot or per fixture
- Operating temperatures: -40° C to 50° C [-40F to 122F]

Electrical :

- Line voltage luminaire for 100 to 277V
- Power and data in 1 cable (#16-5)
- IP68 push-lock connectors
- 5W/ft
- Dimming options: 0-10 volt, DMX, DALI, Lumentalk, or Lutron® EcoSystem® enabled

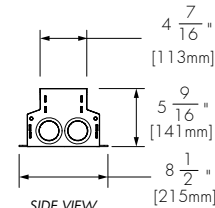


TOP VIEW

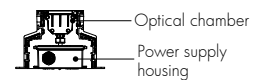


FRONT VIEW

*All dimensions are preliminary



SIDE VIEW



SECTION DETAIL

*To meet 1000kg walk over resistance requirements, cement must support 100% of the exterior surfaces of the blackout.

1/6

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1.877.937.3003

5-year limited warranty.

25/NO/2015
N.Kassabian - Rev.10

1751 Richardson, Suite 1505
Montreal (Quebec) Canada
H3K 1G6

P.514.937.3003
F. 514.937.6289
info@lumenpulse.com
www.lumenpulse.com

Consult www.lumenpulse.com
for our complete Standard Terms
and Conditions of Sales.

lumenpulse

Lumenpulse reserves the right to make changes to this product at any time
without prior notice and such modification shall be effective immediately.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(30) LOID-100/277-24-30K-DIM-ASL (30) PACBOX-
277V-24V-DIM (30) LOI-RBO-24-GRD (1) LOILC-10
(1) LOI-JBOX (29) LOIJC-10FT
Notes:

Type:**EE**

LAI16-104794

Specification Sheet**lumenfacade™**

INGROUND
DIRECT VIEW
WHITE & STATIC COLORS

ACCESSORIES

Order separately, refer to each item's specification sheet for ordering information

Control Systems:

- LTO2** Lumentouch is a wall mount DMX 512 controller keypad.
- LCU** Lumencue is a USB / mini SD DMX 512 controller.
- LID** LumenID is a diagnostic and addressing DMX 512 controller.
It must be specified on all DMX applications.
Refer to LID specification sheet for details.
- LTN** Lumentone is a simple pre-programmed DMX 512 controller
with a push button rotary dial and live feedback.

Control Boxes:

- CBX** DMX/RDM control box.
Up to six power and data outputs to fixtures or fixture runs.
Ethernet enabled option.
Refer to CBX specification sheet for details.

Cables (required):

- LOILC** Leader Cable for Lumenfacade Inground; 10', 25' or 50' [3m, 7.6m or 15.2m] standard lengths
- LOIJC** Jumper Cable for Lumenfacade Inground; 2', 4' or 10' [0.6m, 1.2m or 3m] standard lengths

Inground Junction Box (optional):

Lumenfacade Inground IP68 sealed junction box starter kit - **LOI-JBOX** order code.

*Use for stand alone fixtures and/or first of run fixtures

**Job Name:**

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SCIENCE BUILDING - FIXTURE QUOTE
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Catalog Number:

(30) LOID-100/277-24-30K-DIM-ASL (30) PACBOX-
277V-24V-DIM (30) LOI-RBO-24-GRD (1) LOILC-10
(1) LOI-JBOX (29) LOIJC-10FT
Notes:

Type:**EE**

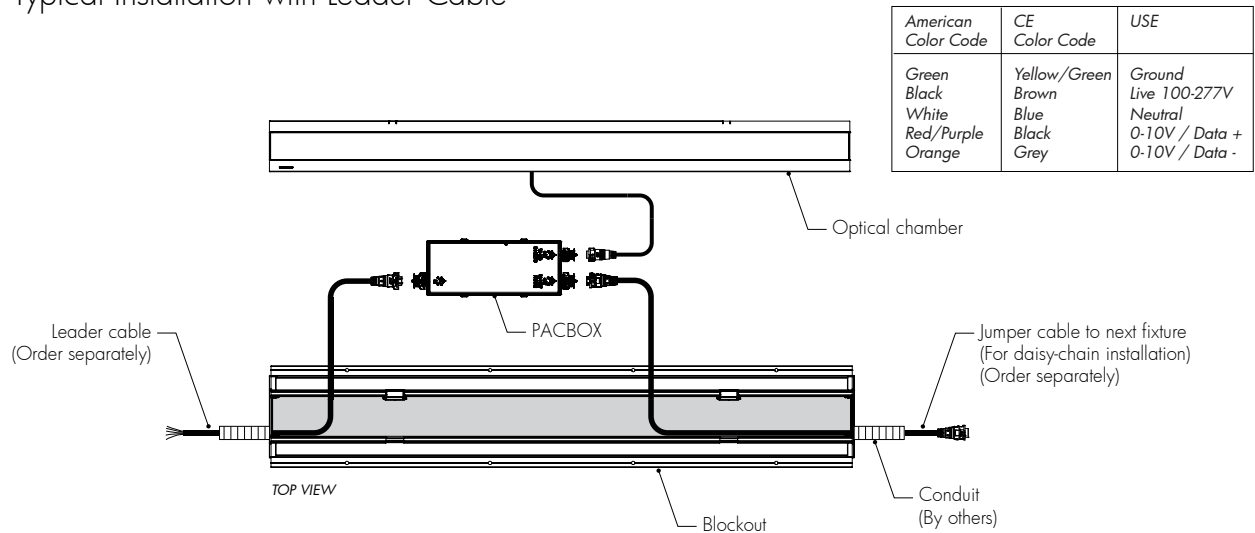
LAI16-104794

Specification Sheet**lumenfacade™**

INGROUND
DIRECT VIEW
WHITE & STATIC COLORS

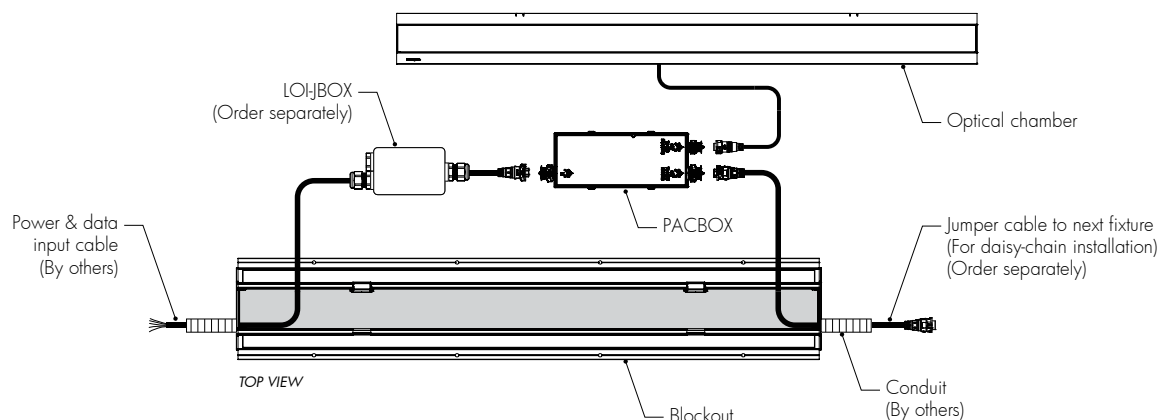
TYPICAL WIRING DIAGRAMS

Typical Installation with Leader Cable



Typical Installation with IP68 LOI-JBOX Accessory

Cannot be used with 1ft LOI fixture



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
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277V-24V-DIM (30) LOI-RBO-24-GRD (1) LOILC-10
(1) LOI-JBOX (29) LOIJC-10FT
Notes:

Type:**EE**

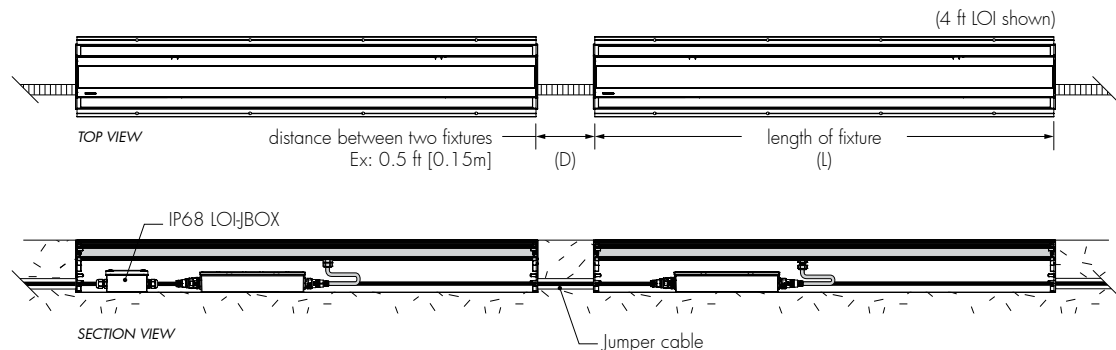
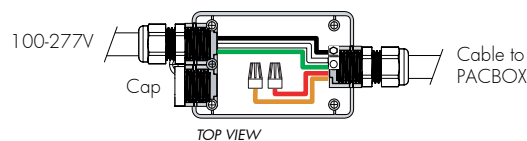
LAI16-104794

Specification Sheet**lumenfacade™**

INGROUND
DIRECT VIEW
WHITE & STATIC COLORS

TYPICAL WIRING DIAGRAMS - continued**Non-Dimming or Lumentalk Dimming Version**

1% minimum dimming value with Lumentalk dimming

**IP68 LOI-JBOX Accessory - Wiring Detail****Jumper Cable Length Selection**

Add the length of one fixture to the
distance between two fixtures: $L + D$.

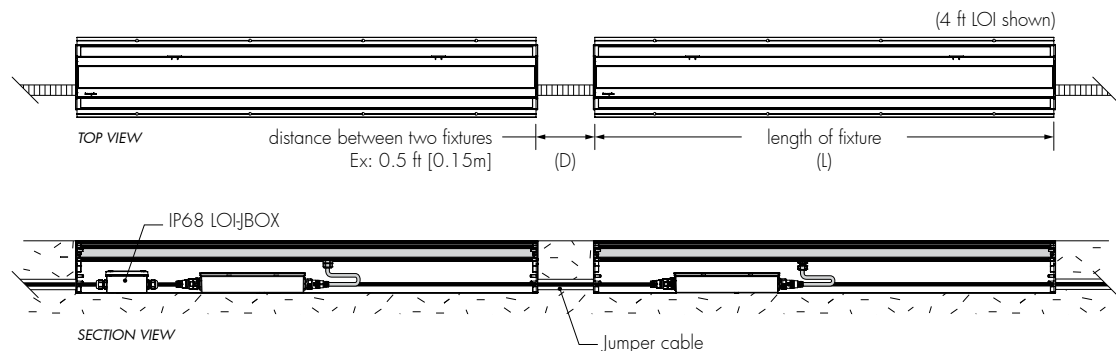
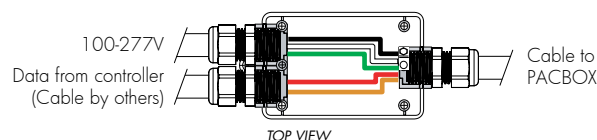
Ex: $L + D = 4.5\text{ft}$
[1.4m]

Order the next longest jumper cable
available: **2', 4' or 10'**
[0.6m, 1.2m or 3m]

Therefore 10' [3m]
jumper cable required

Dimming Version (0-10V, DALI, EcoSystem®*)

10% minimum dimming value for 0-10V, 1% minimum dimming value for DALI, EcoSystem®

**IP68 LOI-JBOX Accessory - Wiring Detail****Jumper Cable Length Selection**

Add the length of one fixture to the
distance between two fixtures: $L + D$.

Ex: $L + D = 4.5\text{ft}$
[1.4m]

Order the next longest jumper cable
available: **2', 4' or 10'**
[0.6m, 1.2m or 3m]

Therefore 10' [3m]
jumper cable required

*Each Lutron® EcoSystem® enabled fixture has its own address; for the example shown above, there are a total of 2 EcoSystem® addresses.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(30) LOID-100/277-24-30K-DIM-ASL (30) PACBOX-
277V-24V-DIM (30) LOI-RBO-24-GRD (1) LOILC-10
(1) LOI-JBOX (29) LOIJC-10FT
Notes:

Type:**EE**

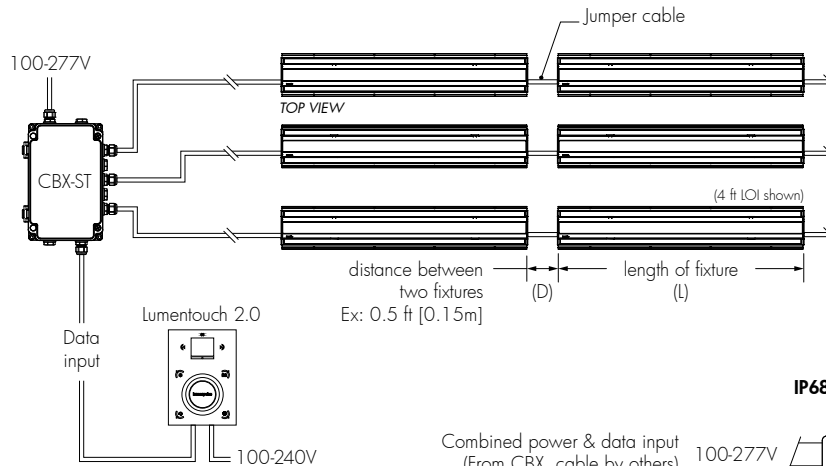
LAI16-104794

Specification Sheet**TYPICAL WIRING DIAGRAMS - continued****lumenfacade™**

INGROUND
DIRECT VIEW
WHITE & STATIC COLORS

Star Layout (DMX Dimming)

1% minimum dimming value

**Jumper Cable Length Selection**

Add the length of one fixture to the distance between two fixtures: $L + D$.

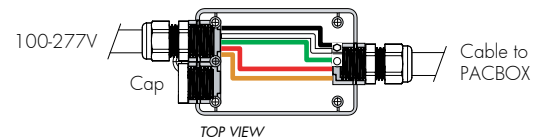
Order the next longest jumper cable available: **2', 4' or 10'**
[0.6m, 1.2m or 3m]

Ex: $L + D = 4.5\text{ft}$ [1.4m]

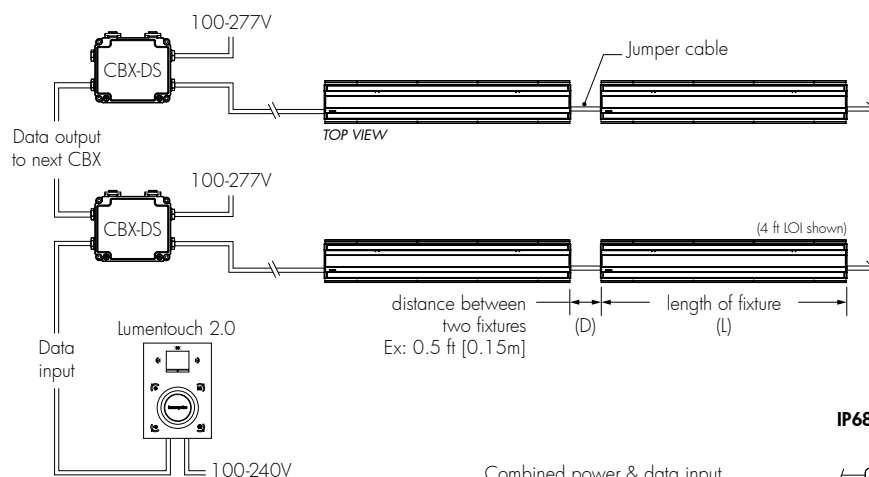
Therefore 10' [3m]
jumper cable required

IP68 LOI-JBOX Accessory - Wiring Detail

Combined power & data input
(From CBX, cable by others)

**Daisy Chain Layout (DMX Dimming)**

1% minimum dimming value

**Jumper Cable Length Selection**

Add the length of one fixture to the distance between two fixtures: $L + D$.

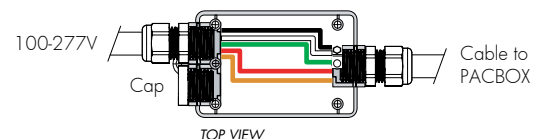
Order the next longest jumper cable available: **2', 4' or 10'**
[0.6m, 1.2m or 3m]

Ex: $L + D = 4.5\text{ft}$ [1.4m]

Therefore 10' [3m]
jumper cable required

IP68 LOI-JBOX Accessory - Wiring Detail

Combined power & data input
(From CBX, cable by others)



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(30) LOID-100/277-24-30K-DIM-ASL (30) PACBOX-
277V-24V-DIM (30) LOI-RBO-24-GRD (1) LOILC-10
(1) LOI-JBOX (29) LOIJC-10FT
Notes:

Type:**EE**

LAI16-104794

Specification Sheet**lumenfacade™**

INGROUND
DIRECT VIEW
WHITE & STATIC COLORS

HOW TO ORDER

LOID | **100/277** | | | | |

1 2 3 4 5 6

1

Housing:**LOID** - lumenfacade™ Inground Direct View, 5W/ft

A lumenfacade Inground fixture includes 1x optical chamber (LOIC), 1x power and control box (PACBOX) and 1x recessed blackout (RBO). The LOIC, PACBOX and RBO are provided according to the output/color, length and control configuration.

2

Voltage:**100/277** - 100-277 volts

3

Length:

12 - 13 1/16 inches (331mm)

24 - 25 1/16 inches (636mm)

36 - 37 1/16 inches (941mm)

48 - 49 1/16 inches (1245mm)

4

Colors and Color temperatures:

27K - 2700K

30K - 3000K

35K - 3500K

40K - 4000K

RD - Red (8-10 weeks lead time)**GR** - Green (8-10 weeks lead time)**BL** - Blue (8-10 weeks lead time)

5

Control:**NO** - No Dimming**LT** - Lumentalk Dimming¹**DIM** - 0-10V Dimming²**DMX 1FT** - DMX Dimming, resolution per foot¹**DMX 1FX** - DMX Dimming, resolution per fixture¹**DALI** - DALI Dimming¹**ES** - Lutron® EcoSystem® Enabled Dimming³

6

Option:**ASL** - Anti-slip lens**PACBOX** - POWER AND CONTROL BOX**RBO** - INGROUND BLOCKOUT**LOILC-10** - LEADER CABLE 10FT**LOIJC-10** - JUMPER CABLE 10FT**JBOX** - FIXTURE JUNCTION BOX - REQUIRED PER FIXTURE**Notes:**¹ 1% minimum dimming value.² 10% minimum dimming value.³ One EcoSystem® address per fixture length. 1% minimum dimming value.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1A-1970LED-F-GT-SR-SV1-4ARC35K-T3-F/EZ/
62PM-MOD/550P-12/CM/DRYLAC 29/65650

Notes: COLOR TO MATCH OTHER PHASE

Type:**EG3**

LAI16-104794

**GALLERY 1970LED**

The 1970LED Gallery series is large scale, decorative downlight fixture with a spun aluminum shade. The dome is available with two types of shades: straight (S) and flared (F) styles. The luminaire shall measure 24" outside diameter and 16 3/8" overall height. The luminaire shall have a hinged door for tool-less driver and LED access. The luminaire shall be supplied with the line-ground, line neutral and neutral-ground electrical surge protection in accordance with IEEE/ANSE C62.41.2 guidelines. The luminaire shall be U.L. or E.T.L. listed in U.S. and Canada.

**SternbergLighting**

ESTABLISHED 1923 / EMPLOYEE OWNED

PROJECT:**TYPE:****ORDERING EXAMPLE: 1A-1970LED-FGW-EZ-FG-6ARC35T2-F-MDH03-R-HSS-FHD/UBKT**

MOUNT CON-FIG.	SERIES Large Scale Downlight		GLOW RINGS ¹	MOUNT OPTIONS	LENS	NO. OF LENS	COLOR TEMP K	DISTR. TYPE	DISTR. ORIENT.	DRIVER	CONTROLS	HOUSE SIDE SHIELD	DUAL FUSE & HOLDER	OPTIONAL FINIAL ^{1,2}	COLOR	
1W	1970LED-S BF	1970LED-S GW ³	BLUE	EZ	FG	10ARC	27(00) K	T2	F	MDL03	O P T I O N S				UBKT	BK
1A	1970LED-F BF	1970LED-F GW ³	GREEN	HS-H	SG	8ARC	35(00) K	T3	R	MDH03	R ¹	HSS	FHD	B	UBT	WH
2A	1970LED-S BT	1970LED-S HW ³	RED	HS-C	FSG	6ARC	45(00) K	T3R	L		R1 ¹			S	ULBT	PG
2A90	1970LED-F BT	1970LED-F HW ³	CLEAR	SH-44	SV1*	4ARC		T4	S		PEC				USLT	ABZ
3A	1970LED-S CW ³	1970LED-S BTSR		CH-44	SV2**			T5							UWHT	DB
3A90	1970LED-F CW ³	1970LED-F BTSR													UCHS	OI
4A	1970LED-S GR ³	1970LED-S GTSR ³													UBK	RT
	1970LED-F GR ³	1970LED-F GTSR ³													UB	WBR
															ULB	CD
															USL	WBK
															UWH	TT
															BKT	VG
															WHT	SI
															PGT	OWGT
															ABZT	
															DBT	

¹ Only available with HS-H and HS-C mounting. ² Not available with Twist-lock photocell. ³ Illuminated LED glow option. ⁴ Only available with 1970LED-S GR and 1970LED-F GR.

Product Specs**Optical**

- IP65 rated. BUG rating of U-0.
- Utilizes high output, high brightness LEDs.
- Operates at -40°C (-40°F) to +50°C (122°F) ambient air temperature range.
- Minimum CRI of 70, CCT 2700, 3500, and 4500K. Call factory for other CCT.
- LM-79 and LM-80 tests in accordance with IESNA standards.
- Lumen depreciation rating L70 > 200,000 hrs. Projected per TM-21 guideline and based on 350mA drive current.
- RoHS Compliant.

Electrical

- 120-277 volt standard and 347-480 volt option available.
- Minimum drivers power factor: >0.9.
- Electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines (10kV).
- UL or ETL listed in U.S. and Canada.

- Illuminated LED glow options are provided with 12 LEDs in the upper housing and will increase system wattage 12W.⁵

⁵ Will contribute uplight and will be a BUG rating of U-1.

Mechanical

- A large scale decorative downlight fixture. The housing is a spun aluminum bell shade attached to a cast aluminum top.
- The luminaire shall be supplied with an aluminum door frame and lens with tool-less access.
- The fixture is offered with many different hangstraight mounting options to accommodate a variety of installations. See mounting options section.
- Luminaire housing is IP65 rated (BF version only).

Controls

- Optional Twist-lock receptacle only R¹.
- Optional Twist-lock receptacle with photocell R1¹.
- Optional electronic button photocell: PEC (120-277V).⁶

⁶ Eliminates IP rating fixture.

Finish

- Durable, color retentive powder coat finish.

Warranty & Standards

LED Systems and Drivers - 7 years. All fixtures shall

be free from all defects in materials and workmanship for a period of 7 years from the date of manufacture. The luminaire manufacturer shall warrant the LED boards/system, during the stated warranty period, against failure defined as more than 10 percent of non-operating LEDs.

Drivers**(0-10V dimming):**

MDL03: 350mA, 120-277V MDH03: 350mA, 347-480V

Lens:

FG - Clear Flat Glass Lens
SG - Clear Sag Glass Lens
FSG - Frosted Sag Glass Lens

Soft Vue (coming September 2014):

SV1* - Flat Medium Diffuse Acrylic Lens
SV2** - Flat Heavy Diffuse Acrylic Lens

* Provides moderate reduction in Brightness while only a minimal reduction in lumen output.

** Provides maximum reduction in Brightness while only a nominal reduction in lumen output. Consult photometric files for exact lumen performance.

Colors**Urbanline Finishes**

UBKT - Urban Black Textured
UBT - Urban Bronze Textured
ULBT - Urban Light Bronze Textured
USLT - Urban Silver Textured
UWHT - Urban White Textured

UCHS - Urban Champagne Satin Smooth

UBK - Urban Black Matte
UB - Urban Bronze Matte
ULB - Urban Light Bronze Matte
USL - Urban Silver Matte
UWH - Urban White Matte

Standard Finishes

BKT - Black Textured
BK - Black
WHT - White Textured
WH - White
PGT - Park Green Textured
PG - Park Green
ABZT - Architectural Medium Bronze Textured

ABZ - Architectural Medium Bronze

DBT - Dark Bronze Textured
DB - Dark Bronze

Custom Finishes

OI - Old Iron
RT - Rust
WBR - Weathered Brown

CD - Cedar
WBK - Weathered Black
TT - Two Tone

Sternberg Select Finishes

VG - Verde Green
SI - Swedish Iron
OWGT - Old World Gray Textured

Distribution Orientation

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1A-1970LED-F-GTSR-SV1-4ARC35K-T3-F/EZ/
62PM-MOD/550P-12/CM/DRYLAC 29/65650

Notes: COLOR TO MATCH OTHER PHASE

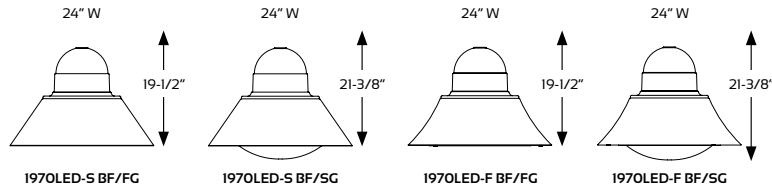
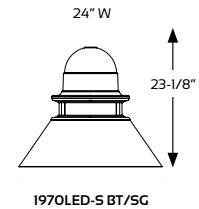
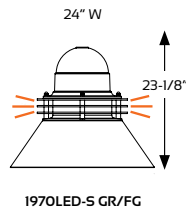
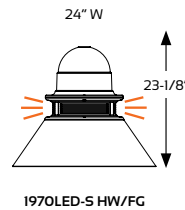
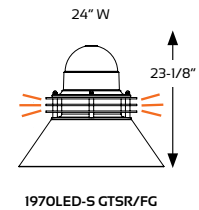
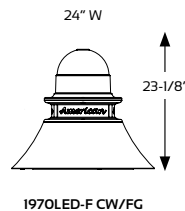
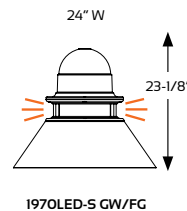
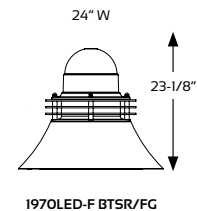
Type:**EG3**

LAI16-104794

Product Dimensions and Features

All models available with Straight (S) or Flared (F) shades

EPA: 0.93 SQUARE FT
WEIGHT: 38 LBS

1970LED GALLERY BF BASE FIXTURE**1970LED GALLERY BT BLANK TOP****1970LED GALLERY GR GLOW RINGS****1970LED GALLERY HW HORIZONTAL WINDOW****1970LED GALLERY GLOW TOP SOLID RINGS****1970LED GALLERY CW CUSTOM WINDOW DESIGNS****1970LED GALLERY GW GLOW WINDOW****1970LED GALLERY BTSR BLANK TOP SOLID RINGS****Mounting Options**

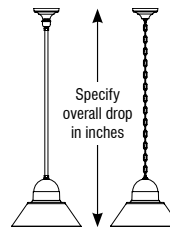
EZ
EZ Hang
Vertical
2-3/4"W x
4"H



HS-H
Horizontal
8-1/4"W x
7-5/8"H



HS-C
Clamp
12-1/2"W x
7-5/8"H



SH44 **CH44**
Stem Hung Chain Hung



B
Ball Finial
3"W x 4-3/8"H



S
Spiked Finial
2-1/2"W x 6-3/8"H

* Only available with HS-H, HS-C, and SM mounting

Mounting Configurations

1W



1A



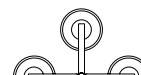
2A



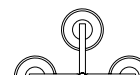
2A90



3A



3A90



4A

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1A-1970LED-F-GTSR-SV1-4ARC35K-T3-F/EZ/
62PM-MOD/550P-12/CM/DRYLAC 29/65650

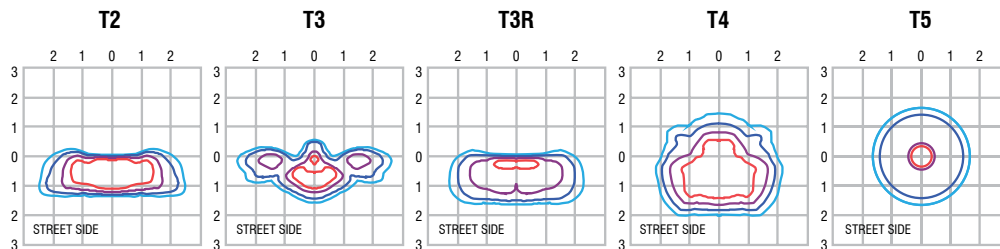
Notes: COLOR TO MATCH OTHER PHASE

Type:**EG3**

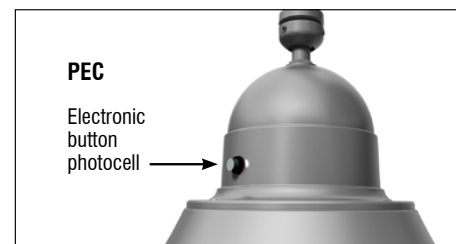
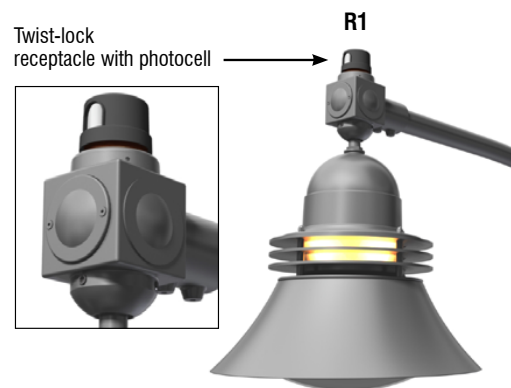
LAI16-104794

Performance (Based on FG Lens)

MODEL #	T2 DELIVERED LUMENS	EFFICACY (LPW)	T3 DELIVERED LUMENS	EFFICACY (LPW)	T3R DELIVERED LUMENS	EFFICACY (LPW)	T4 DELIVERED LUMENS	EFFICACY (LPW)	T5 DELIVERED LUMENS	EFFICACY (LPW)	WATT-AGE
4ARC27	4905	74.3	4575	69.3	4940	74.8	4810	72.9	4740	71.8	66
4ARC35	5595	84.8	5220	79.1	5630	85.3	5480	83.0	5405	81.9	66
4ARC45	5965	90.4	5560	84.2	6000	90.9	5840	88.5	5760	87.3	66
6ARC27	7105	73.2	6760	69.7	6895	71.1	6770	69.8	6725	69.3	97
6ARC35	8105	83.6	7705	79.4	7865	81.1	7720	79.6	7670	79.1	97
6ARC45	8635	89.0	8215	84.7	8380	86.4	8230	84.8	8170	84.2	97
8ARC27	9465	74.5	9085	71.5	9230	72.7	9055	71.3	8870	69.8	127
8ARC35	10790	85.0	10360	81.6	10525	82.9	10325	81.3	10115	79.6	127
8ARC45	11500	90.6	11040	86.9	11215	88.3	11000	86.6	10780	84.9	127
10ARC27	11530	72.1	11105	69.4	11330	70.8	11080	69.3	10965	68.5	160
10ARC35	13145	82.2	12665	79.2	12920	80.8	12635	79.0	12505	78.2	160
10ARC45	14010	87.6	13495	84.3	13770	86.1	13465	84.2	13325	83.3	160

ISO Footcandle Plots

All published luminaire photometric testing performed to IESNA LM-79 standards by NVLAP, certified laboratory. ISO footcandle plots demonstrate the GALLERY 1970LED light patterns only. Not for total fixture output. For complete specifications and IES files, see website.

Other Options



Job Name:

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

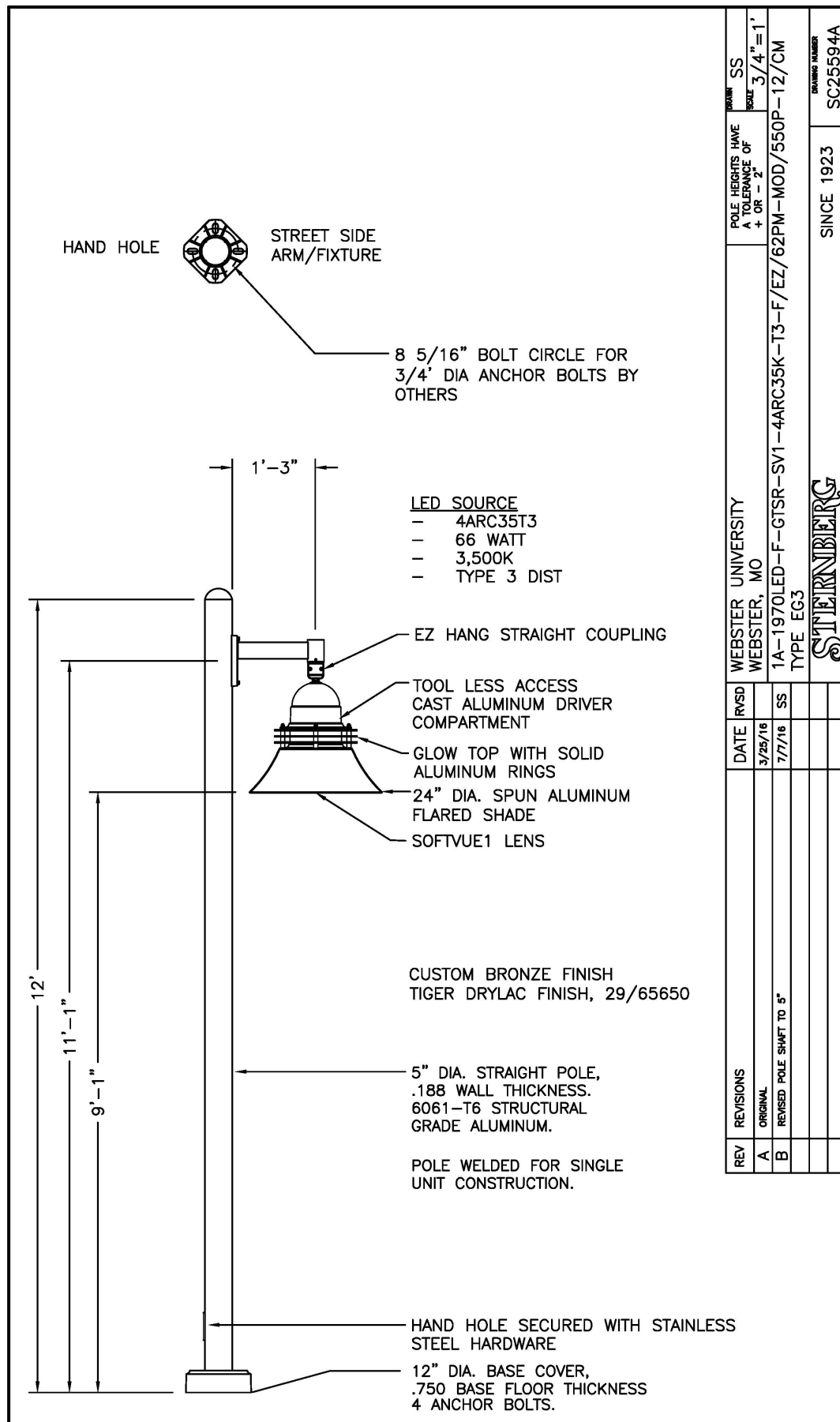
1A-1970LED-F-GTSR-SV1-4ARC35K-T3-F/EZ/
62PM-MOD/550P-12/CM/DRYLAC 29/65650

Notes: COLOR TO MATCH OTHER PHASE

Type:

EG3

LAI16-104794



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1A-1970LED-F-GT-SR-SV1-4ARC35K-T5-F/EZ/
62PM-MOD/550P-12/CM/DRYLAC 29/65650

Notes: COLOR TO MATCH OTHER PHASE

Type:**EG5**

LAI16-104794

**GALLERY 1970LED**

The 1970LED Gallery series is large scale, decorative downlight fixture with a spun aluminum shade. The dome is available with two types of shades: straight (S) and flared (F) styles. The luminaire shall measure 24" outside diameter and 16 3/8" overall height. The luminaire shall have a hinged door for tool-less driver and LED access. The luminaire shall be supplied with the line-ground, line neutral and neutral-ground electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines. The luminaire shall be U.L. or E.T.L. listed in U.S. and Canada.

**SternbergLighting**

ESTABLISHED 1923 / EMPLOYEE OWNED

PROJECT:**TYPE:****ORDERING EXAMPLE: 1A-1970LED-FGW-EZ-FG-6ARC35T2-F-MDH03-R-HSS-FHD/UBKT**

MOUNT CON-FIG.	SERIES Large Scale Downlight		GLOW RINGS ¹	MOUNT OPTIONS	LENS	NO. OF LENS	COLOR TEMP K	DISTR. TYPE	DISTR. ORIENT.	DRIVER	CONTROLS	HOUSE SIDE SHIELD	DUAL FUSE & HOLDER	OPTIONAL FINIAL ^{1,2}	COLOR	
1W	1970LED-S BF	1970LED-S GW ³	BLUE	EZ	FG	10ARC	27(00) K	T2	F	MDL03					UBKT	BK
1A	1970LED-F BF	1970LED-F GW ³	GREEN	HS-H	SG	8ARC	35(00) K	T3	R	MDH03	R ¹	HSS	FHD	B	UBT	WH
2A	1970LED-S BT	1970LED-S HW ³	RED	HS-C	FSG	6ARC	45(00) K	T3R	L		R1 ¹			S	ULBT	PG
2A90	1970LED-F BT	1970LED-F HW ³	CLEAR	SH-44	SV1*	4ARC		T4	S		PEC				USLT	ABZ
3A	1970LED-S CW ³	1970LED-S BTSR		CH-44	SV2**			T5							UWHT	DB
3A90	1970LED-F CW ³	1970LED-F BTSR													UCHS	OI
4A	1970LED-S GR ³	1970LED-S GTSR ³													UBK	RT
	1970LED-F GR ³	1970LED-F GTSR ³													UB	WBR

¹ Only available with HS-H and HS-C mounting. ² Not available with Twist-lock photocell. ³ Illuminated LED glow option. ⁴ Only available with 1970LED-S GR and 1970LED-F GR.

Product Specs**Optical**

- IP65 rated. BUG rating of U-0.
- Utilizes high output, high brightness LEDs.
- Operates at -40°C (-40°F) to +50°C (122°F) ambient air temperature range.
- Minimum CRI of 70, CCT 2700, 3500, and 4500K. Call factory for other CCT.
- LM-79 and LM-80 tests in accordance with IESNA standards.
- Lumen depreciation rating L70 > 200,000 hrs. Projected per TM-21 guideline and based on 350mA drive current.
- RoHS Compliant.

Electrical

- 120-277 volt standard and 347-480 volt option available.
- Minimum drivers power factor: >0.9.
- Electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines (10kV).
- UL or ETL listed in U.S. and Canada.

- Illuminated LED glow options are provided with 12 LEDs in the upper housing and will increase system wattage 12W.⁵

⁵ Will contribute uplight and will be a BUG rating of U-1.

Mechanical

- A large scale decorative downlight fixture. The housing is a spun aluminum bell shade attached to a cast aluminum top.
- The luminaire shall be supplied with an aluminum door frame and lens with tool-less access.
- The fixture is offered with many different hangstraight mounting options to accommodate a variety of installations. See mounting options section.
- Luminaire housing is IP65 rated (BF version only).

Controls

- Optional Twist-lock receptacle only R¹.
- Optional Twist-lock receptacle with photocell R1¹.
- Optional electronic button photocell: PEC (120-277V).⁶

⁶ Eliminates IP rating fixture.

Finish

- Durable, color retentive powder coat finish.

Warranty & Standards

LED Systems and Drivers - 7 years. All fixtures shall

be free from all defects in materials and workmanship for a period of 7 years from the date of manufacture. The luminaire manufacturer shall warrant the LED boards/system, during the stated warranty period, against failure defined as more than 10 percent of non-operating LEDs.

Drivers**(0-10V dimming):**

MDL03: 350mA, 120-277V MDH03: 350mA, 347-480V

Lens:

FG - Clear Flat Glass Lens
SG - Clear Sag Glass Lens
FSG - Frosted Sag Glass Lens

Soft Vue (coming September 2014):

SV1* - Flat Medium Diffuse Acrylic Lens
SV2** - Flat Heavy Diffuse Acrylic Lens

* Provides moderate reduction in Brightness while only a minimal reduction in lumen output.

** Provides maximum reduction in Brightness while only a nominal reduction in lumen output. Consult photometric files for exact lumen performance.

Colors**Urbanline Finishes**

UBKT - Urban Black Textured
UBT - Urban Bronze Textured
ULBT - Urban Light Bronze Textured
USLT - Urban Silver Textured
UWHT - Urban White Textured

UCHS - Urban Champagne Satin Smooth

UBK - Urban Black Matte
UB - Urban Bronze Matte
ULB - Urban Light Bronze Matte
USL - Urban Silver Matte
UWH - Urban White Matte

Standard Finishes

BKT - Black Textured
BK - Black
WHT - White Textured
WH - White
PGT - Park Green Textured
PG - Park Green
ABZT - Architectural Medium Bronze Textured

ABZ - Architectural Medium Bronze

DBT - Dark Bronze Textured
DB - Dark Bronze

Custom Finishes

OI - Old Iron
RT - Rust
WBR - Weathered Brown

CD - Cedar
WBK - Weathered Black
TT - Two Tone

Sternberg Select Finishes

VG - Verde Green
SI - Swedish Iron
OWGT - Old World Gray Textured

Distribution Orientation

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1A-1970LED-F-GTSR-SV1-4ARC35K-T5-F/EZ/
62PM-MOD/550P-12/CM/DRYLAC 29/65650

Notes: COLOR TO MATCH OTHER PHASE

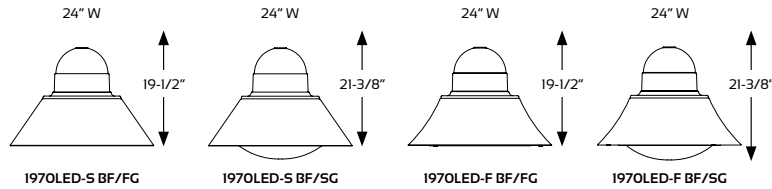
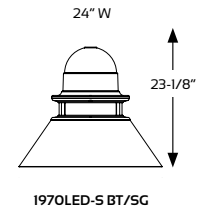
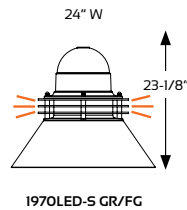
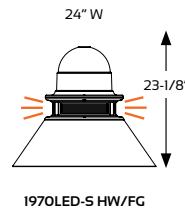
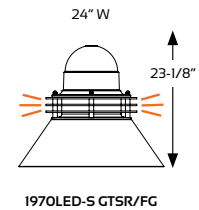
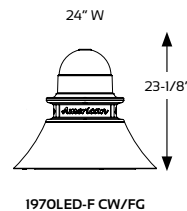
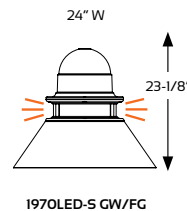
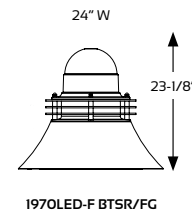
Type:**EG5**

LAI16-104794

Product Dimensions and Features

All models available with Straight (S) or Flared (F) shades

EPA: 0.93 SQUARE FT
WEIGHT: 38 LBS

1970LED GALLERY BF BASE FIXTURE**1970LED GALLERY BT BLANK TOP****1970LED GALLERY GR GLOW RINGS****1970LED GALLERY HW HORIZONTAL WINDOW****1970LED GALLERY GLOW TOP SOLID RINGS****1970LED GALLERY CW CUSTOM WINDOW DESIGNS****1970LED GALLERY GW GLOW WINDOW****1970LED GALLERY BTSR BLANK TOP SOLID RINGS****Mounting Options**

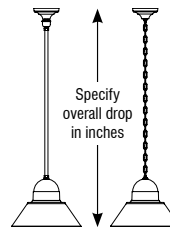
EZ
EZ Hang
Vertical
2-3/4"W x
4"H



HS-H
Horizontal
8-1/4"W x
7-5/8"H



HS-C
Clamp
12-1/2"W x
7-5/8"H



SH44 **CH44**
Stem Hung Chain Hung



B
Ball Finial
3"W x 4-3/8"H



S
Spiked Finial
2-1/2"W x 6-3/8"H

* Only available with HS-H, HS-C, and SM mounting

Mounting Configurations

1W



1A



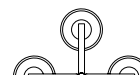
2A



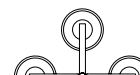
2A90



3A



3A90



4A

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1A-1970LED-F-GTSR-SV1-4ARC35K-T5-F/EZ/
62PM-MOD/550P-12/CM/DRYLAC 29/65650

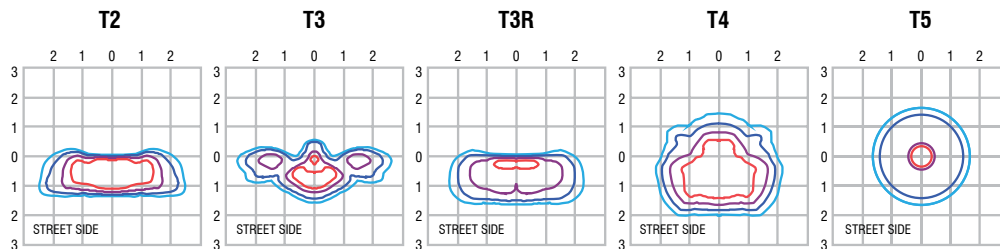
Notes: COLOR TO MATCH OTHER PHASE

Type:**EG5**

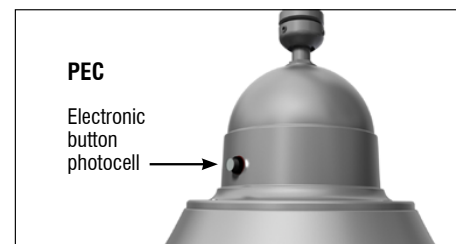
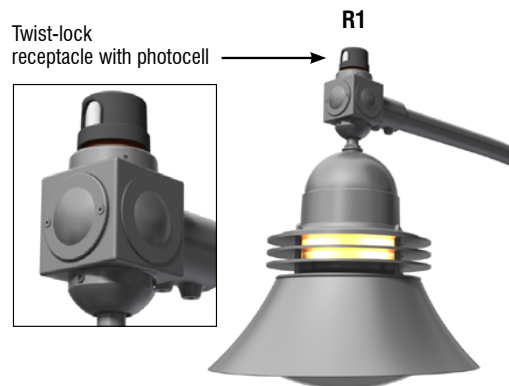
LAI16-104794

Performance (Based on FG Lens)

MODEL #	T2 DELIVERED LUMENS	EFFICACY (LPW)	T3 DELIVERED LUMENS	EFFICACY (LPW)	T3R DELIVERED LUMENS	EFFICACY (LPW)	T4 DELIVERED LUMENS	EFFICACY (LPW)	T5 DELIVERED LUMENS	EFFICACY (LPW)	WATT-AGE
4ARC27	4905	74.3	4575	69.3	4940	74.8	4810	72.9	4740	71.8	66
4ARC35	5595	84.8	5220	79.1	5630	85.3	5480	83.0	5405	81.9	66
4ARC45	5965	90.4	5560	84.2	6000	90.9	5840	88.5	5760	87.3	66
6ARC27	7105	73.2	6760	69.7	6895	71.1	6770	69.8	6725	69.3	97
6ARC35	8105	83.6	7705	79.4	7865	81.1	7720	79.6	7670	79.1	97
6ARC45	8635	89.0	8215	84.7	8380	86.4	8230	84.8	8170	84.2	97
8ARC27	9465	74.5	9085	71.5	9230	72.7	9055	71.3	8870	69.8	127
8ARC35	10790	85.0	10360	81.6	10525	82.9	10325	81.3	10115	79.6	127
8ARC45	11500	90.6	11040	86.9	11215	88.3	11000	86.6	10780	84.9	127
10ARC27	11530	72.1	11105	69.4	11330	70.8	11080	69.3	10965	68.5	160
10ARC35	13145	82.2	12665	79.2	12920	80.8	12635	79.0	12505	78.2	160
10ARC45	14010	87.6	13495	84.3	13770	86.1	13465	84.2	13325	83.3	160

ISO Footcandle Plots

All published luminaire photometric testing performed to IESNA LM-79 standards by NVLAP, certified laboratory. ISO footcandle plots demonstrate the GALLERY 1970LED light patterns only. Not for total fixture output. For complete specifications and IES files, see website.

Other Options

SternbergLighting
ESTABLISHED 1923 / EMPLOYEE OWNED



800-621-3376
555 Lawrence Ave., Roselle, IL 60172
info@sternberglighting.com
www.sternberglighting.com

11/14 STERNBERG LIGHTING. ALL RIGHTS RESERVED. PRINTED IN THE USA.



Job Name:

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

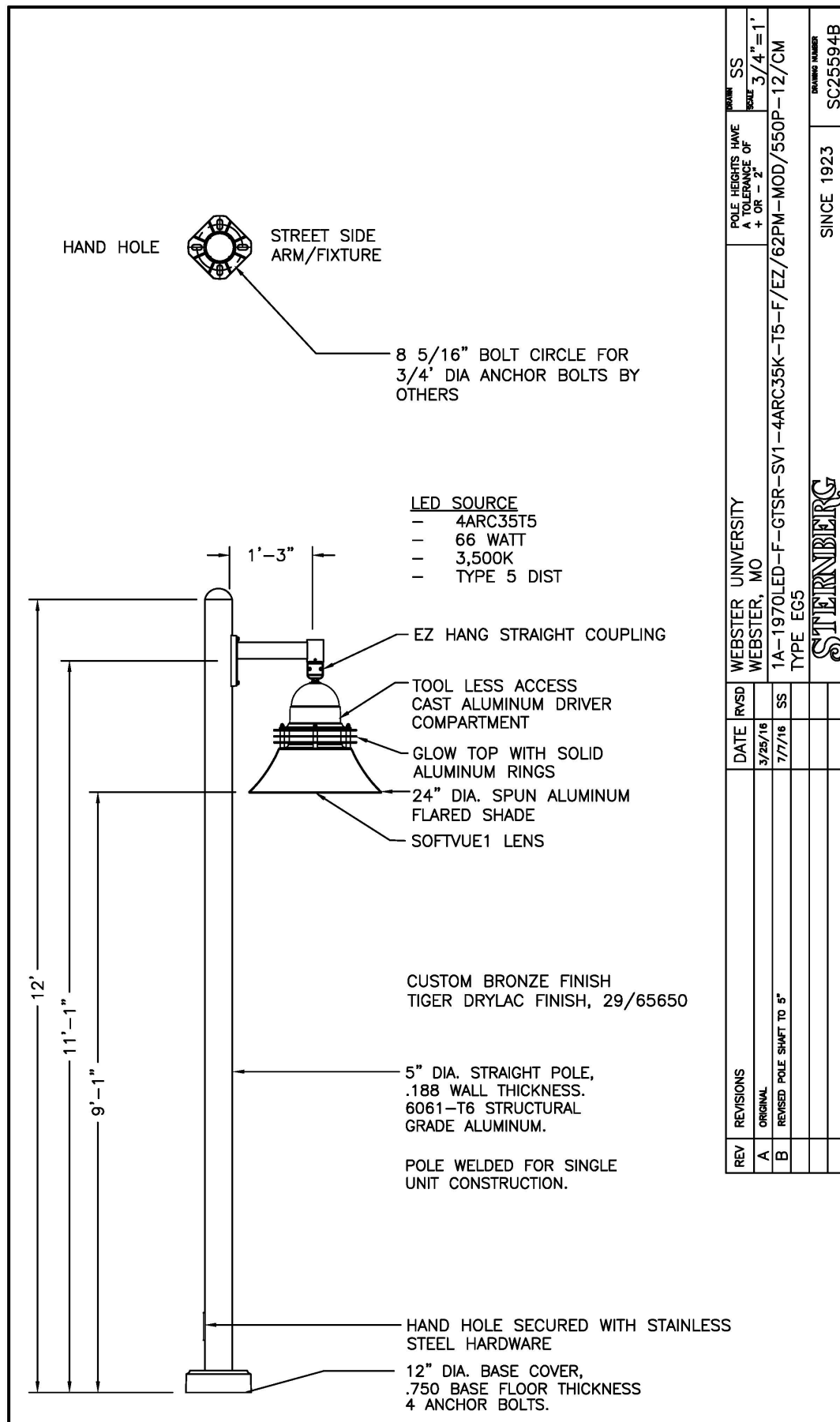
1A-1970LED-F-GTSR-SV1-4ARC35K-T5-F/EZ/
62PM-MOD/550P-12/CM/DRYLAC 29/65650

Notes: COLOR TO MATCH OTHER PHASE

Type:

EG5

LAI16-104794



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1A-1970LED-F-GTSR-SV1-4ARC35K-T5-F-EZ/62PM-
MOD/550P-12/1-GFI/LPIUC/CM DRYLAC 29/65650

Notes: COLOR TO MATCH OTHER PHASE

Type:**EG5R**

LAI16-104794

**GALLERY 1970LED**

The 1970LED Gallery series is large scale, decorative downlight fixture with a spun aluminum shade. The dome is available with two types of shades: straight (S) and flared (F) styles. The luminaire shall measure 24" outside diameter and 16 3/8" overall height. The luminaire shall have a hinged door for tool-less driver and LED access. The luminaire shall be supplied with the line-ground, line neutral and neutral-ground electrical surge protection in accordance with IEEE/ANSE C62.41.2 guidelines. The luminaire shall be U.L. or E.T.L. listed in U.S. and Canada.

**SternbergLighting**

ESTABLISHED 1923 / EMPLOYEE OWNED

PROJECT:**TYPE:****ORDERING EXAMPLE: 1A-1970LED-FGW-EZ-FG-6ARC35T2-F-MDH03-R-HSS-FHD/UBKT**

MOUNT CON-FIG.	SERIES Large Scale Downlight		GLOW RINGS ¹	MOUNT OPTIONS	LENS	NO. OF LENS	COLOR TEMP K	DISTR. TYPE	DISTR. ORIENT.	DRIVER	CONTROLS	HOUSE SIDE SHIELD	DUAL FUSE & HOLDER	OPTIONAL FINIAL ^{1,2}	COLOR	
1W	1970LED-S BF	1970LED-S GW ³	BLUE	EZ	FG	10ARC	27(00) K	T2	F	MDL03	O P T I O N S				UBKT	BK
1A	1970LED-F BF	1970LED-F GW ³	GREEN	HS-H	SG	8ARC	35(00) K	T3	R	MDH03	R ¹	HSS	FHD	B	UBT	WH
2A	1970LED-S BT	1970LED-S HW ³	RED	HS-C	FSG	6ARC	45(00) K	T3R	L		R1 ¹			S	ULBT	PG
2A90	1970LED-F BT	1970LED-F HW ³	CLEAR	SH-44	SV1*	4ARC		T4	S		PEC				USLT	ABZ
3A	1970LED-S CW ³	1970LED-S BTRSR		CH-44	SV2**			T5							UWHT	DB
3A90	1970LED-F CW ³	1970LED-F BTRSR													UCHS	OI
4A	1970LED-S GR ³	1970LED-S GTSR ³													UBK	RT
	1970LED-F GR ³	1970LED-F GTSR ³													UB	WBR

¹ Only available with HS-H and HS-C mounting. ² Not available with Twist-lock photocell. ³ Illuminated LED glow option. ⁴ Only available with 1970LED-S GR and 1970LED-F GR.

Product Specs**Optical**

- IP65 rated. BUG rating of U-0.
- Utilizes high output, high brightness LEDs.
- Operates at -40°C (-40°F) to +50°C (122°F) ambient air temperature range.
- Minimum CRI of 70, CCT 2700, 3500, and 4500K. Call factory for other CCT.
- LM-79 and LM-80 tests in accordance with IESNA standards.
- Lumen depreciation rating L70 > 200,000 hrs. Projected per TM-21 guideline and based on 350mA drive current.
- RoHS Compliant.

Electrical

- 120-277 volt standard and 347-480 volt option available.
- Minimum drivers power factor: >0.9.
- Electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines (10kV).
- UL or ETL listed in U.S. and Canada.

- Illuminated LED glow options are provided with 12 LEDs in the upper housing and will increase system wattage 12W.⁵

⁵ Will contribute uplight and will be a BUG rating of U-1.

Mechanical

- A large scale decorative downlight fixture. The housing is a spun aluminum bell shade attached to a cast aluminum top.
- The luminaire shall be supplied with an aluminum door frame and lens with tool-less access.
- The fixture is offered with many different hangstraight mounting options to accommodate a variety of installations. See mounting options section.
- Luminaire housing is IP65 rated (BF version only).

Controls

- Optional Twist-lock receptacle only R¹.
- Optional Twist-lock receptacle with photocell R1¹.
- Optional electronic button photocell: PEC (120-277V).⁶

⁶ Eliminates IP rating fixture.

Finish

- Durable, color retentive powder coat finish.

Warranty & Standards

LED Systems and Drivers - 7 years. All fixtures shall

be free from all defects in materials and workmanship for a period of 7 years from the date of manufacture. The luminaire manufacturer shall warrant the LED boards/system, during the stated warranty period, against failure defined as more than 10 percent of non-operating LEDs.

Drivers**(0-10V dimming):**

MDL03: 350mA, 120-277V MDH03: 350mA, 347-480V

Lens:

FG - Clear Flat Glass Lens
SG - Clear Sag Glass Lens
FSG - Frosted Sag Glass Lens

Soft Vue (coming September 2014):

SV1* - Flat Medium Diffuse Acrylic Lens
SV2** - Flat Heavy Diffuse Acrylic Lens

* Provides moderate reduction in Brightness while only a minimal reduction in lumen output.

** Provides maximum reduction in Brightness while only a nominal reduction in lumen output. Consult photometric files for exact lumen performance.

Colors**Urbanline Finishes**

UBKT - Urban Black Textured
UBT - Urban Bronze Textured
ULBT - Urban Light Bronze Textured
USLT - Urban Silver Textured
UWHT - Urban White Textured

UCHS - Urban Champagne Satin Smooth

UBK - Urban Black Matte
UB - Urban Bronze Matte
ULB - Urban Light Bronze Matte
USL - Urban Silver Matte
UWH - Urban White Matte

Standard Finishes

BKT - Black Textured
BK - Black
WHT - White Textured
WH - White
PGT - Park Green Textured
PG - Park Green
ABZT - Architectural Medium Bronze Textured

ABZ - Architectural Medium Bronze

DBT - Dark Bronze Textured
DB - Dark Bronze

Custom Finishes

OI - Old Iron
RT - Rust
WBR - Weathered Brown

CD - Cedar
WBK - Weathered Black
TT - Two Tone

Sternberg Select Finishes

VG - Verde Green
SI - Swedish Iron
OWGT - Old World Gray Textured

Distribution Orientation

**Job Name:**

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Catalog Number:

1A-1970LED-F-GTSR-SV1-4ARC35K-T5-F-/EZ/62PM-
MOD/550P-12/1-GFI/LPIUC/CM DRYLAC 29/65650

Notes: COLOR TO MATCH OTHER PHASE

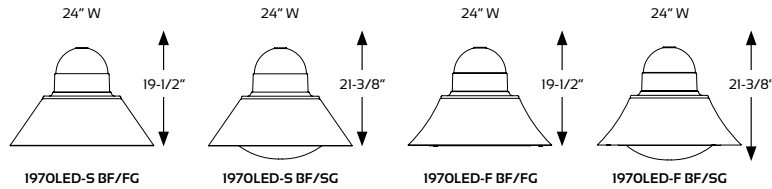
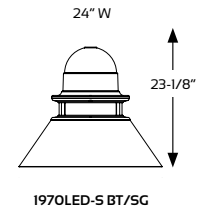
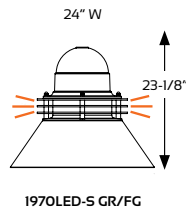
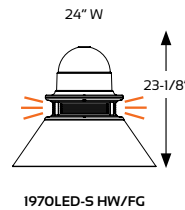
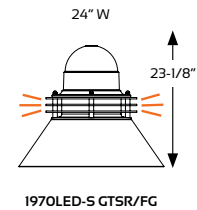
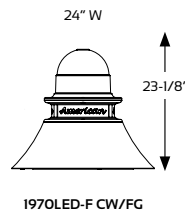
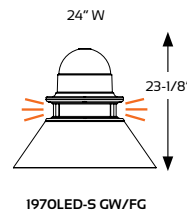
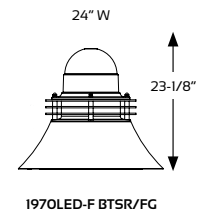
Type:**EG5R**

LAI16-104794

Product Dimensions and Features

All models available with Straight (S) or Flared (F) shades

EPA: 0.93 SQUARE FT
WEIGHT: 38 LBS

1970LED GALLERY BF BASE FIXTURE**1970LED GALLERY BT BLANK TOP****1970LED GALLERY GR GLOW RINGS****1970LED GALLERY HW HORIZONTAL WINDOW****1970LED GALLERY GLOW TOP SOLID RINGS****1970LED GALLERY CW CUSTOM WINDOW DESIGNS****1970LED GALLERY GW GLOW WINDOW****1970LED GALLERY BTSR BLANK TOP SOLID RINGS****Mounting Options**

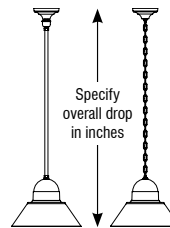
EZ
EZ Hang
Vertical
2-3/4"W x
4"H



HS-H
Horizontal
8-1/4"W x
7-5/8"H



HS-C
Clamp
12-1/2"W x
7-5/8"H



SH44 **CH44**
Stem Hung Chain Hung



B
Ball Finial
3"W x 4-3/8"H



S
Spiked Finial
2-1/2"W x 6-3/8"H

* Only available with HS-H, HS-C, and SM mounting

Mounting Configurations

1W



1A



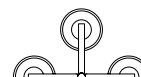
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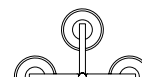
2A90



3A



3A90



4A

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1A-1970LED-F-GTSR-SV1-4ARC35K-T5-F-/EZ/62PM-
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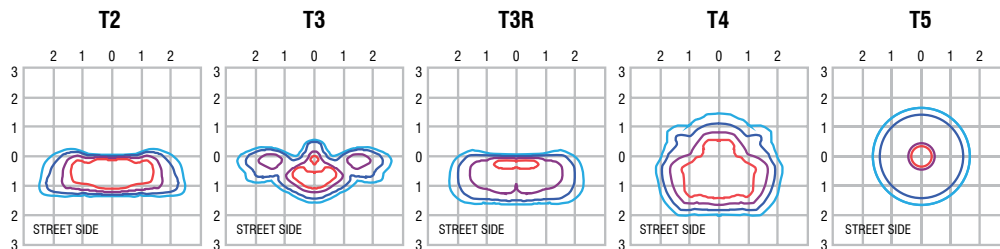
EG5R

LAI16-104794

Performance (Based on FG Lens)

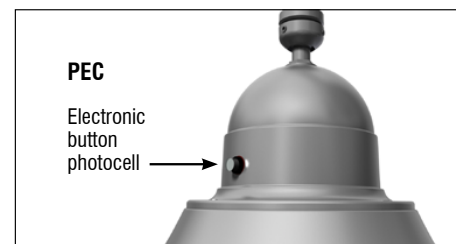
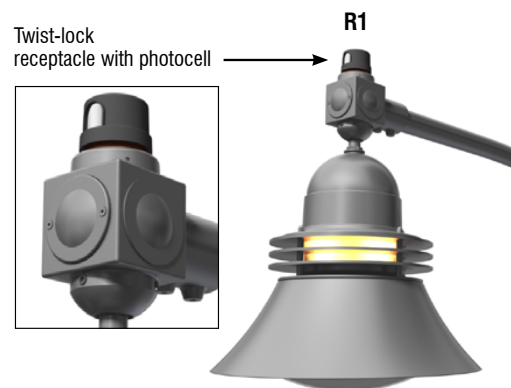
MODEL #	T2 DELIVERED LUMENS	EFFICACY (LPW)	T3 DELIVERED LUMENS	EFFICACY (LPW)	T3R DELIVERED LUMENS	EFFICACY (LPW)	T4 DELIVERED LUMENS	EFFICACY (LPW)	T5 DELIVERED LUMENS	EFFICACY (LPW)	WATT-AGE
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ISO Footcandle Plots



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Other Options





Job Name:

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

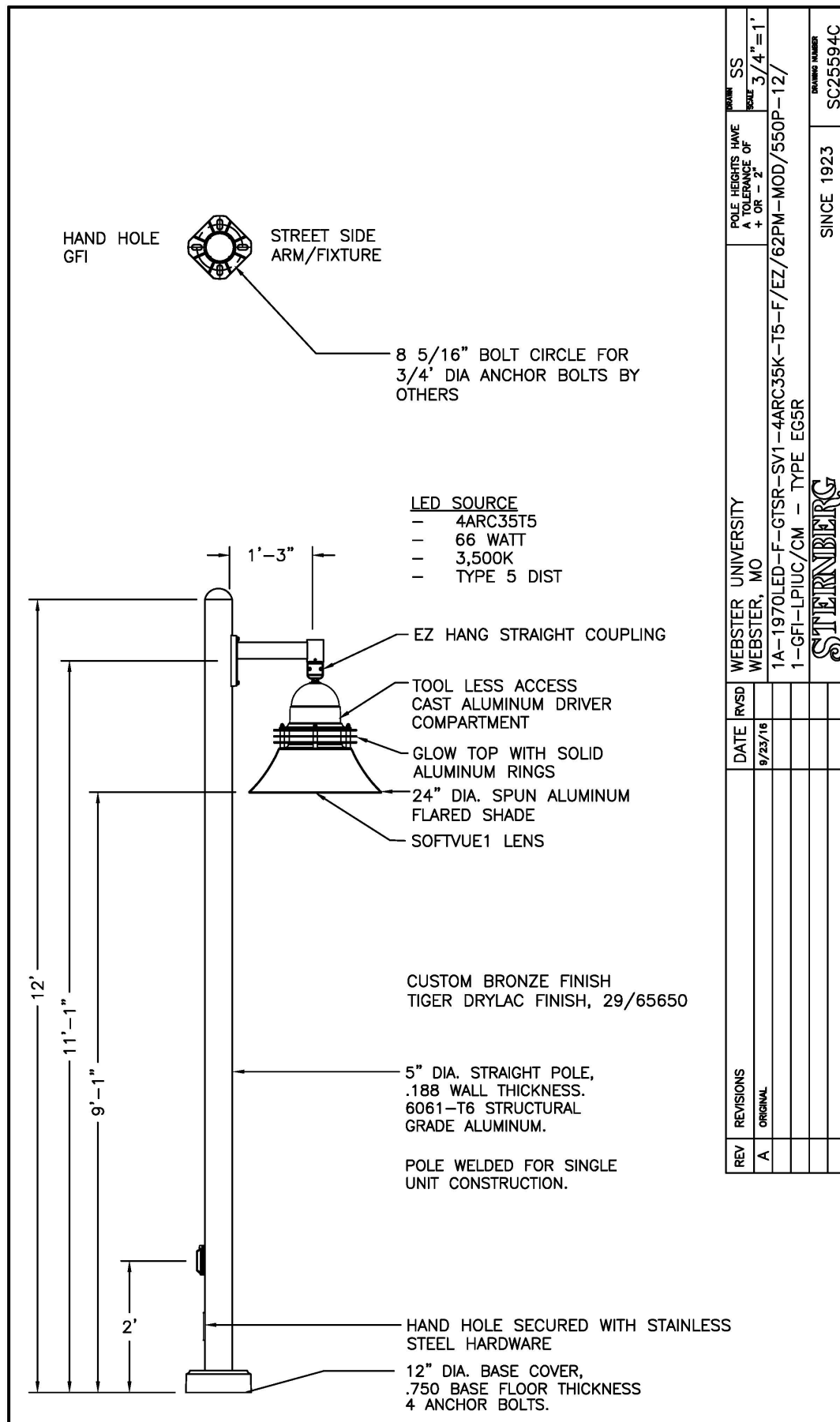
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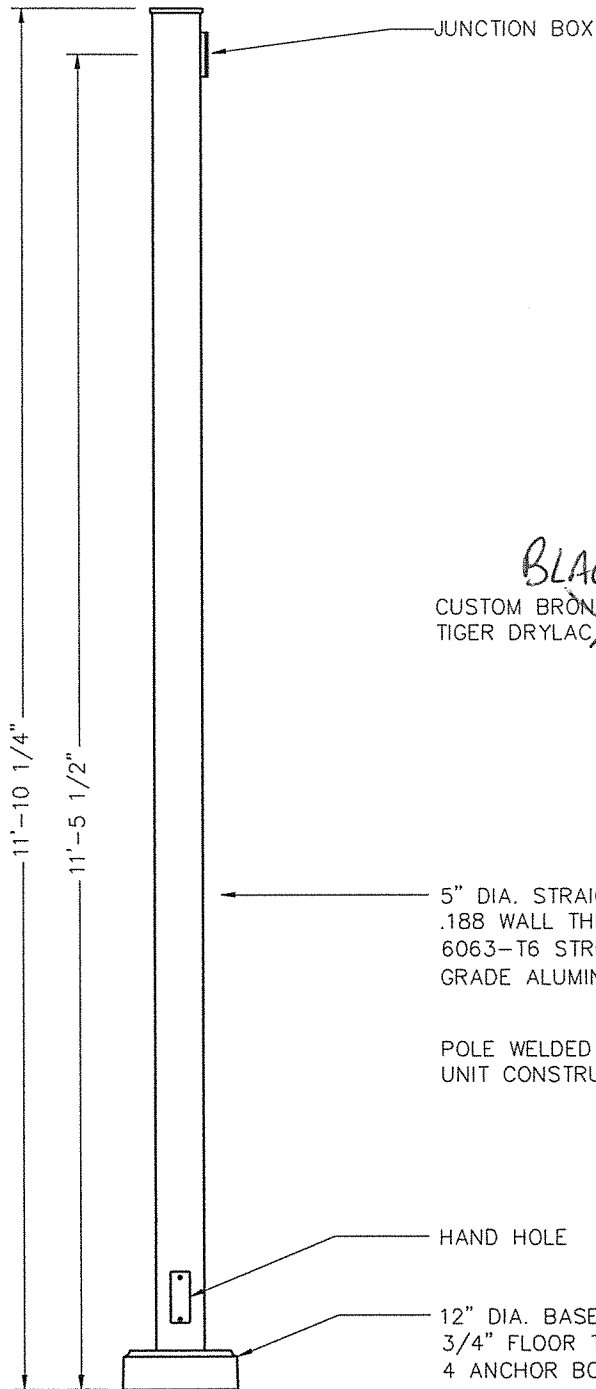
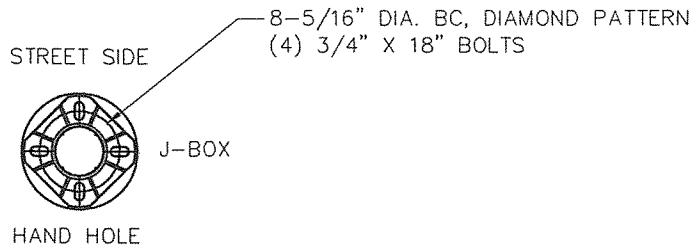
Notes: COLOR TO MATCH OTHER PHASE

Type:

EG5R

LAI16-104794





BLACK STD FINISH
CUSTOM BRONZE FINISH
TIGER DRYLAC FINISH, 049/66220

REV	REVISIONS	DATE	RVSD	BY	DATE	BY
A	ORIGINAL	1/27/17	JG			
B	CHANGED TO J BOX, REMOVED BCC AND ADD FLAT CAP	2/22/17	JG			

WEBSTER UNIVERSITY ST. LOUIS, MO	550P5-12/PCC/J-BOX/CM TYPE: L41	POLE HEIGHTS HAVE A TOLERANCE OF + OR - 2"
-------------------------------------	------------------------------------	--

STERNBERGLIGHTING	ESTABLISHED 1921 EMPLOYEE OWNED	DRAWING NUMBER SC27367
-------------------	---------------------------------	---------------------------

RICK BRANSTETTER
OK
3-22-17 RELEASE

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

MP1279VIA4PDI-HLO-LGO-LED-80-750-
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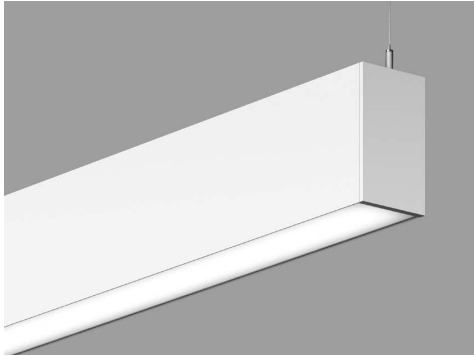
Notes:

Type:**PA4**

LAI16-104794

MP1279

VIA 4 LED PENDANT DIRECT/INDIRECT



Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.

LUMENWERX
WWW.LUMENWERX.COM

PROJECT: _____

TYPE: _____

NOTES: _____

**MANUFACTURER PROVIDED
UPDATED PART NUMBER**

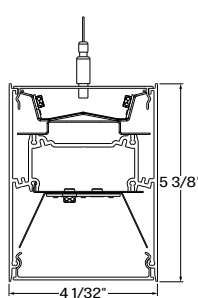
ORDER GUIDE

MP1279VIA4PDI	HLO	LGO	LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MP1279VIA4PDI - via 4" pendant direct/indirect	HLO - High-Efficiency Lambertian Optic	LGO - Wide spread Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft

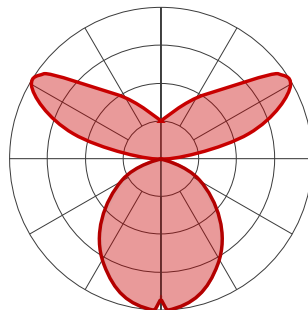
500 LUMEN
TYPICAL FOR ALL
PA FIXTURES

PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory	30 - 3000k 35 - 3500k 40 - 4000k	4' Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device

ELECTRICAL	MOUNTING	FINISH	OPTIONS
1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" air craft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) For all other mountings refer to the Pendant Mounting Guide.	W - matte white AL - aluminum CF# - custom finish specify RAL#	9/16 TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip

CROSS SECTION

MP1279 - air craft cable



**Job Name:**

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(SAINT LOUIS)

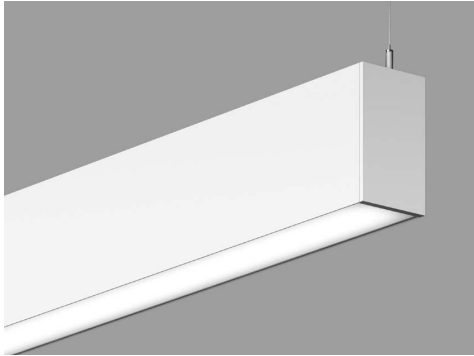
Catalog Number:

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500-30-6'-277-D-1-53WAC36-W-TG9

Notes:

Type:**PA6**

LAI16-104794

MP1279**VIA 4 LED PENDANT DIRECT/INDIRECT**

Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.



PROJECT: _____

TYPE: _____

NOTES: _____

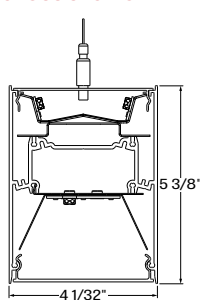
**MANUFACTURER PROVIDED
UPDATED PART NUMBER**

ORDER GUIDE

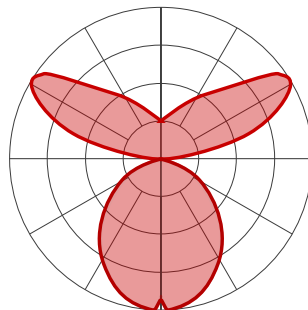
MP1279VIA4PDI	HLO	LGO	LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MP1279VIA4PDI - via 4" pendant direct/indirect	HLO - High-Efficiency Lambertian Optic	LGO - Wide spread Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft

INDIRECT LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory	30 - 3000k 35 - 3500k 40 - 4000k	6' Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device

ELECTRICAL	MOUNTING	FINISH	OPTIONS
1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" air craft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) For all other mountings refer to the Pendant Mounting Guide.	W - matte white AL - aluminum CF# - custom finish specify RAL#	9/16 TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip

CROSS SECTION

MP1279 - air craft cable



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

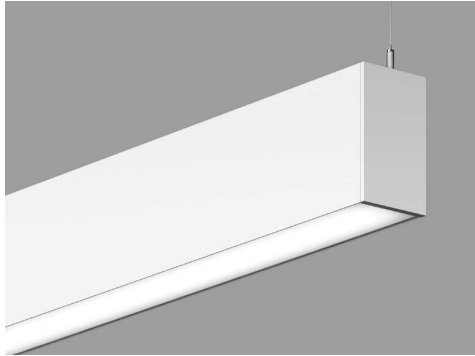
Catalog Number:

MP1279VIA4PDI-HLO-LGO-LED-80-750-
500-30-8'-277-D-1-53WAC36-W-TG9

Notes:

Type:**PA8**

LAI16-104794

MP1279**VIA 4 LED PENDANT DIRECT/INDIRECT**

Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.



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PROJECT: _____

TYPE: _____

NOTES: _____

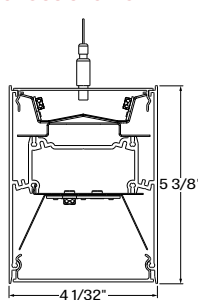
**MANUFACTURER PROVIDED
UPDATED PART NUMBER**

ORDER GUIDE

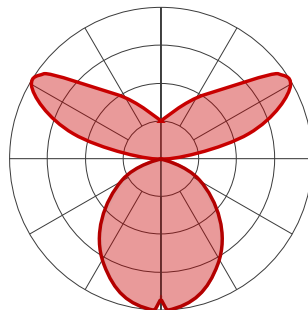
MP1279VIA4PDI	HLO	LGO	LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MP1279VIA4PDI - via 4" pendant direct/indirect	HLO - High-Efficiency Lambertian Optic	LGO - Wide spread Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft

		8'			
INDIRECT LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory	30 - 3000k 35 - 3500k 40 - 4000k	Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device

			9/16
ELECTRICAL	MOUNTING	FINISH	OPTIONS
1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" air craft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) For all other mountings refer to the Pendant Mounting Guide.	W - matte white AL - aluminum CF# - custom finish specify RAL#	TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip

CROSS SECTION

MP1279 - air craft cable



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

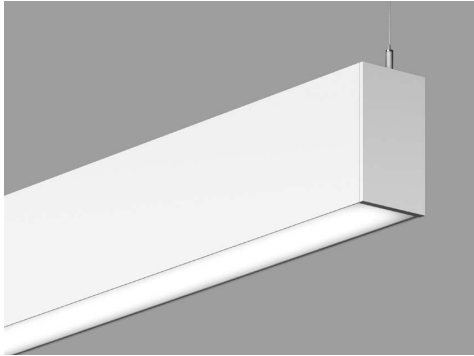
Catalog Number:

MP1279VIA4PDI-HLO-LGO-LED-80-750-
500-30-12'-277-D-1-53WAC36-W-TG9

Notes:

Type:**PA12**

LAI16-104794

MP1279**VIA 4 LED PENDANT DIRECT/INDIRECT**

Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.



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PROJECT: _____

TYPE: _____

NOTES: _____

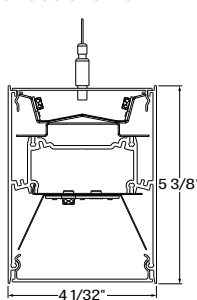
**MANUFACTURER PROVIDED
UPDATED PART NUMBER**

ORDER GUIDE

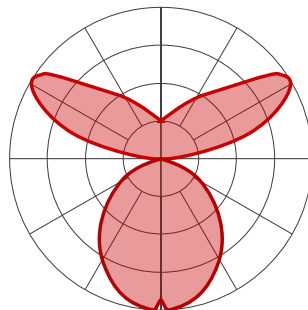
MP1279VIA4PDI	HLO	LGO	LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MP1279VIA4PDI - via 4" pendant direct/indirect	HLO - High-Efficiency Lambertian Optic	LGO - Wide spread Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft

		12'			
INDIRECT LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory	30 - 3000k 35 - 3500k 40 - 4000k	Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits + #EM - emergency light circuit + #NL - night light circuit + #GTD - generator transfer device

			9/16
ELECTRICAL	MOUNTING	FINISH	OPTIONS
1 - 1 circuit 2 - 2 circuits + #EM - emergency light circuit + #NL - night light circuit + #GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" air craft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) For all other mountings refer to the Pendant Mounting Guide.	W - matte white AL - aluminum CF# - custom finish specify RAL#	TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip

CROSS SECTION

MP1279 - air craft cable



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

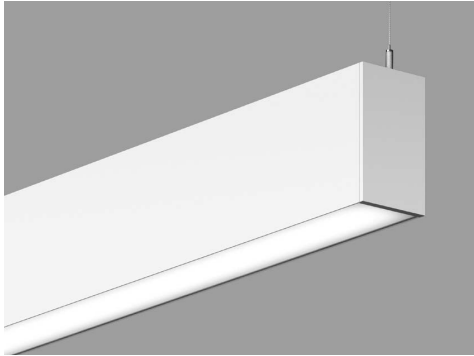
Catalog Number:

MP1279VIA4PDI-HLO-LGO-LED-80-750-500-30-16'-
277-D-2-W-(EACH 8FT ON SEP CIR)-53WAC36-TG9

Notes:

Type:**PA16-2**

LAI16-104794

MP1279**VIA 4 LED PENDANT DIRECT/INDIRECT**

Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.



PROJECT: _____

TYPE: _____

NOTES: _____

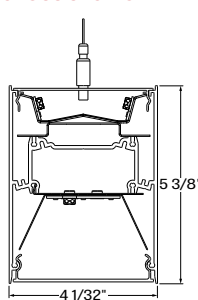
**MANUFACTURER PROVIDED
UPDATED PART NUMBER**

ORDER GUIDE

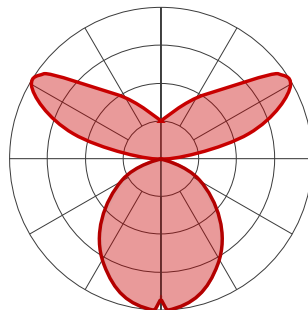
MP1279VIA4PDI	HLO	LGO	LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MP1279VIA4PDI - via 4" pendant direct/indirect	HLO - High-Efficiency Lambertian Optic	LGO - Wide spread Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft

INDIRECT LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory	30 - 3000k 35 - 3500k 40 - 4000k	16' Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device

8FT EA ON SEP CKT			9/16
ELECTRICAL	MOUNTING	FINISH	OPTIONS
1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" air craft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) For all other mountings refer to the Pendant Mounting Guide.	W - matte white AL - aluminum CF# - custom finish specify RAL#	TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip

CROSS SECTION

MP1279 - air craft cable



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

MP1279VIA4PDI-HLO-LGO-LED-80-750-
500-30-16'-277-D-1-W-53WAC36-TG9

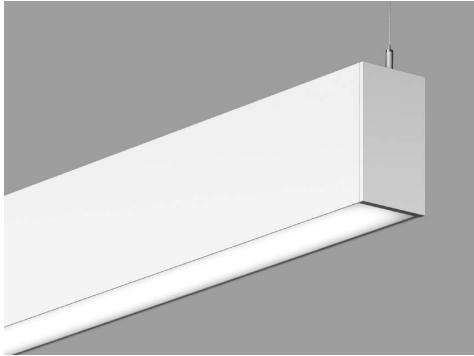
Notes:

Type:**PA16-1**

LAI16-104794

MP1279

VIA 4 LED PENDANT DIRECT/INDIRECT



Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.



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PROJECT: _____

TYPE: _____

NOTES: _____

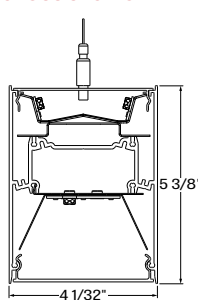
**MANUFACTURER PROVIDED
UPDATED PART NUMBER**

ORDER GUIDE

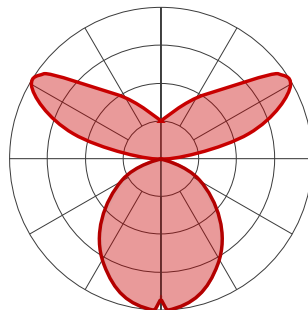
MP1279VIA4PDI	HLO	LGO	LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MP1279VIA4PDI - via 4" pendant direct/indirect	HLO - High-Efficiency Lambertian Optic	LGO - Wide spread Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft

		16'			
INDIRECT LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory	30 - 3000k 35 - 3500k 40 - 4000k	Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits + #EM - emergency light circuit + #NL - night light circuit + #GTD - generator transfer device

			9/16
ELECTRICAL	MOUNTING	FINISH	OPTIONS
1 - 1 circuit 2 - 2 circuits + #EM - emergency light circuit + #NL - night light circuit + #GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" air craft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) For all other mountings refer to the Pendant Mounting Guide.	W - matte white AL - aluminum CF# - custom finish specify RAL#	TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip

CROSS SECTION

MP1279 - air craft cable



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

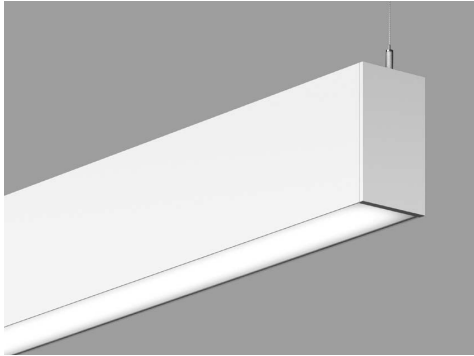
Catalog Number:

MP1279VIA4PDI-HLO-LGO-LED-80-750-500-30-22'-
277-D-2-W- (10FT SECTION/12SECTION SEP CIRC)-
53WAC36-TG9

Notes:

Type:**PA22**

LAI16-104794

MP1279**VIA 4 LED PENDANT DIRECT/INDIRECT**

Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.



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PROJECT: _____

TYPE: _____

NOTES: _____

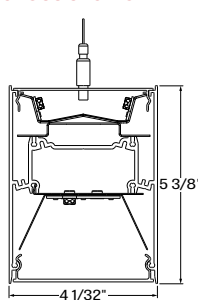
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UPDATED PART NUMBER**

ORDER GUIDE

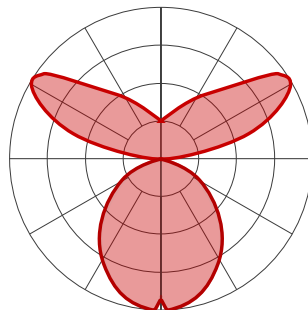
MP1279VIA4PDI	HLO	LGO	LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MP1279VIA4PDI - via 4" pendant direct/indirect	HLO - High-Efficiency Lambertian Optic	LGO - Wide spread Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft

		16'			
INDIRECT LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory	30 - 3000k 35 - 3500k 40 - 4000k	Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device

10FT/12FT ON SEP CKT		9/16	
ELECTRICAL	MOUNTING	FINISH	OPTIONS
1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" air craft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) For all other mountings refer to the Pendant Mounting Guide.	W - matte white AL - aluminum CF# - custom finish specify RAL#	TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip

CROSS SECTION

MP1279 - air craft cable



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

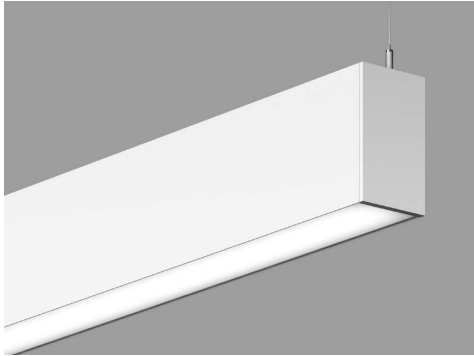
Catalog Number:

MP1279VIA4PDI-HLO-LGO-LED-80-750-500-30-24'-
277-D-2-W- (2 12FT SECTION ON SEP CIRCUIT)-
53WAC36-TG9

Notes:

Type:**PA24**

LAI16-104794

MP1279**VIA 4 LED PENDANT DIRECT/INDIRECT**

Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.



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PROJECT: _____

TYPE: _____

NOTES: _____

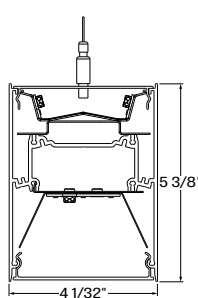
**MANUFACTURER PROVIDED
UPDATED PART NUMBER**

ORDER GUIDE

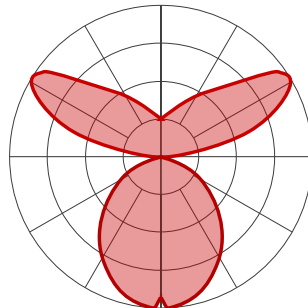
MP1279VIA4PDI	HLO	LGO	LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MP1279VIA4PDI - via 4" pendant direct/indirect	HLO - High-Efficiency Lambertian Optic	LGO - Wide spread Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft

		24'			
INDIRECT LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory	30 - 3000k 35 - 3500k 40 - 4000k	Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device

12FT EA ON SEP CKT			9/16
ELECTRICAL	MOUNTING	FINISH	OPTIONS
1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" air craft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) For all other mountings refer to the Pendant Mounting Guide.	W - matte white AL - aluminum CF# - custom finish specify RAL#	TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip

CROSS SECTION

MP1279 - air craft cable



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-D-26'-6"-H-3000K-F-277-FM-
SC-C4-1%DIM

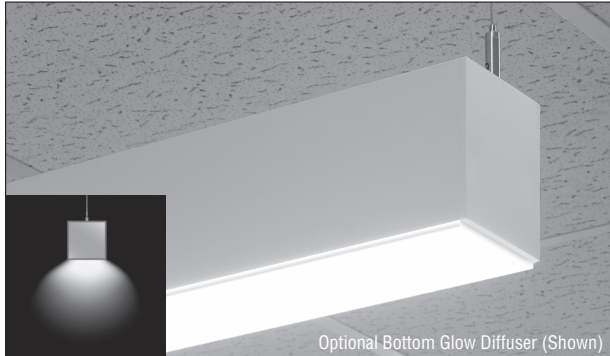
Notes:

Type:**PB26-6**

LAI16-104794

LED

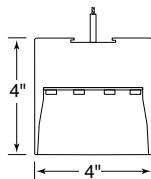
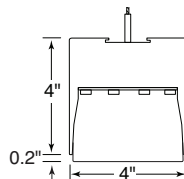
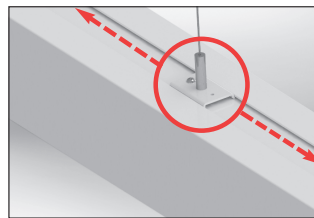
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Direct**

Optional Bottom Glow Diffuser (Shown)

Date Project Type Comments **DESCRIPTION**

High Performance 4" Aperture Direct (HP-4 D) is a patented, linear LED luminaire with Flush and Bottom Glow™ options for the downlight. The micro shape delivers excellent performance using an advanced optical design and mid-power LEDs to achieve 90% of initial light output at 100,000+ hours.

Flush Downlight Diffuser
(Standard)Bottom Glow Diffuser
(Optional)**FLEXIBLE MOUNTING**

The flexible mounting bracket adjusts the suspension points along the length of the luminaire to accommodate existing architecture. Suspension points adjust up to 2' in from the end of 8' or 12' fixture lengths and up to 1' in on shorter lengths.

Tailored Lighting
10 working days**TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32"$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 D - 32' - S - 8 - 35 - F - 120V - FA - SC - C1 - OBO

26' 6"Finelite **Series HP-4 D**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32"$), standard)

Light Output (S - Standard Output, B - Boosted Standard Output,

H - High Output, V - Very High Output)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

Downlight Diffuser Option (F - Flush (standard), BG - Bottom)

Voltage (120V, 277V)

Mounting (FA - Fully Adjustable, FM - Flexible Mounting)

Circuiting (SC - Single Circuit)

Ceiling Type (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - Screw Slot, C4 - Hard Ceiling)

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)

1% DIMMING

*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-D-26'-6"-H-3000K-F-277-FM-
SC-C4-1%DIM

Notes:

Type:**PB26-6**

LAI16-104794

LED

BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Direct

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy (Lumen per watt): 100.1

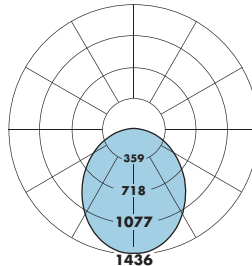
Total luminaire output: 3705 Lumens (926 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1436 @ 0°

CCT: 3500K

ITL LM79 Report 85124



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1436	1436	1436	1436	1436	
5	1428	1428	1427	1427	1427	135
15	1363	1353	1358	1357	1350	382
25	1236	1221	1226	1219	1212	563
35	1060	1047	1048	1037	1030	653
45	859	849	848	836	831	652
55	647	639	637	628	623	568
65	434	432	431	425	424	425
75	236	236	237	235	236	250
85	67	68	69	70	69	77
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1517	1907	2882	3705

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
379	477	720	926

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
104.7	103.6	101.5	100.1

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85124

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

High Output (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2882 lm x 0.789 = 2274 lm

Total Light Output per Foot =
720 lm/ft x 0.789 = 568 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{568 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-D-26'-6"-H-3000K-F-277-FM-
SC-C4-1%DIM

Notes:

Type:**PB26-6**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Direct

SPECIFICATIONS

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard.

ENDCAPS: Flat diecast aluminum endcaps add 0.25" to each end of luminaire.

MITERED CORNER: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors finished in 96LG High Reflectance white power coat paint.

DOWNLIGHT DIFFUSER: 12' maximum lens length. Flush frost white snap-in lens standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Bottom Glow™ frost white snap-in lens option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Factory-choice low-profile backup battery available. 8' minimum fixture length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum fixture length. Backup batteries deliver 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush and Bottom Glow downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: 50" Fully Adjustable (FA) plated steel aircraft cable with safety stop hardware standard. Contact factory for additional lengths up to 150". The Flexible Mounting Bracket (FM) adjusts the suspension points to accommodate existing architecture. Suspension points adjust up to 2' in from the end of 8' or 12' fixture lengths and up to 1' in on shorter lengths.

FINISHES: Finelite Signal White powder coat standard. Optional Adders: 185 Tiger Drylac's non-metallic RAL colors.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when fixture current exceeds 5 amps.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Fixture and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

4SNLED-LD4-50SL-LW-UNV-L835-
CD1-U AYC-CHAIN/SET-U

Notes:

Type:**PC**

LAI16-104794

Metalux**DESCRIPTION**

SNLED Lensed is a narrow LED lensed striplight series. This high quality luminaire is dedicated to the latest solid state lighting and electronic driver technology for optimal performance and energy efficiency. This Lensed product is available with three different lens types.

The small size of the SNLED makes it an ideal choice for size restricted architectural applications. The SNLED Series can be the illumination solution in commercial, industrial, retail and residential applications. Fixtures can be used in storage/utility areas, coves, display cases, shops, task and general area lighting.

SPECIFICATION FEATURES**Construction**

Channel is die formed cold rolled steel with numerous KOs for ease of installation. Groove for Tong Hanger. End plate quickly converts to snap-in channel connector for continuous row alignment. Channel/wireway cover secured with sheet metal screws.

Controls

Equipped standard with a 0-10V continuous dimming driver that works with any standard 0-10V control/dimmer. Dimming range is 10% to 100%; varies by control device. Combine with energy-saving products like occupancy sensors, day lighting controls, and lighting relay panels to maximize energy savings. For motion control, reference options for both end and middle of the row applications.

Electrical

Long-Life LED system coupled with electronic (120-277V) driver to deliver optimal lighting performance. LED's available in 3000K, 3500K, 4000K, or 5000K with a CRI ≥ 85 . Other color temperatures are available. Projected life is 60,000 hours at 70% lumen output. This driver is 0-10V dimming standard.

Emergency Battery Pack Option

Optional 120v-277v integral emergency battery pack is available in 7-watts or 14-watts

to meet critical life-safety lighting requirements. The 90-minute batteries provide constant power to the LED system, ensuring code-compliance. A test switch/indicator button can be tested safely from the ground using a laser pointer, while the patented EZ Key prevents accidental discharge of the battery during construction. See ordering information for details.

Finish

Multistage iron phosphate pretreatment ensures maximum bonding and rust inhibitor. High reflective paint after fabrication, baked white enamel finish is standard.

Channel/Wireway Cover

Die formed heavy gauge steel. Tight fit for ease of maintenance.

Shielding

Offers three different lensed optical distributions. (LC) Clear with linear optical ribs. (LN) Semi-frost for narrow distribution. (LW) Full frost for wide distribution.

Installation

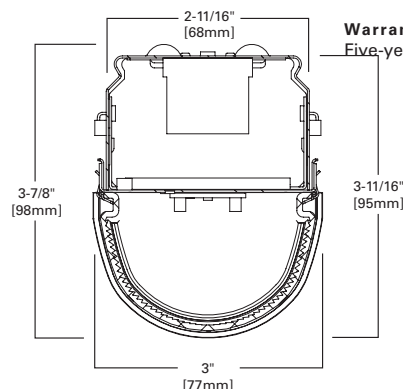
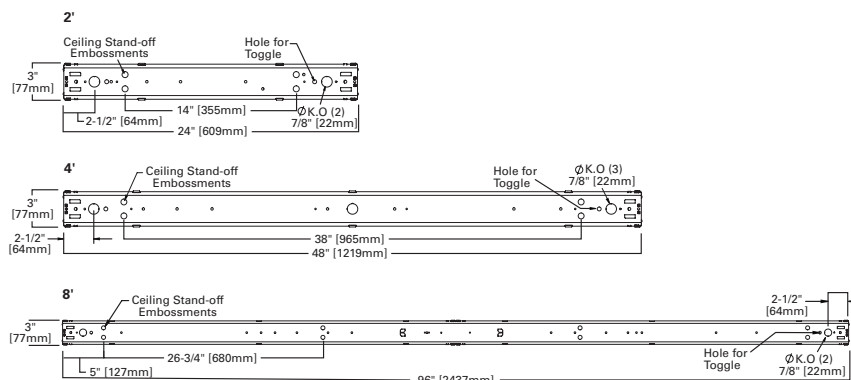
Fixture may be surface, pendant, or stem mounted. See accessories below in ordering information.

Compliance

Components are UL recognized. Indoor luminaires are cULus listed for 40° C ambient environments, RoHS compliant, damp location listed, and comply with IESNA LM-79. LEDs comply with LM-80 standards. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.

Warranty

Five-year warranty.

**MOUNTING DATA****SNLED LENSED LED**

Lensed LED Striplight

powered by
fifthlight
technology

**LINEAR DISCONNECT**

Safe and convenient means of
disconnecting power



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

4SNLED-LD4-50SL-LW-UNV-L835-
CD1-U AYC-CHAIN/SET-U

Notes:

Type:**PC**

LAI16-104794

WATTAGE**SNLED LENSED**

SNLED Type	Stock* / MTO	Lumen Type	Length	Catalog Logic	Nominal Lumens	Wattage	lm/W
Clear Lens (LC)	MTO	Standard	2 ft.	2SNLED-LD4-18SL-LC-UNV-L8XX-CD1-U	1907	17.13	105
Clear Lens (LC)	MTO	Standard	2 ft.	2SNLED-LD4-22SL-LC-UNV-L8XX-CD1-U	2325	21.7	101
Clear Lens (LC)	MTO	Standard	2 ft.	2SNLED-LD4-26SL-LC-UNV-L8XX-CD1-U	2712	23.18	112

Clear Lens (LC)	MTO	Standard	4 ft.	4SNLED-LD4-18SL-LC-UNV-L8XX-CD1-U	2038	16.21	111
Clear Lens (LC)	MTO	Standard	4 ft.	4SNLED-LD4-22SL-LC-UNV-L8XX-CD1-U	2301	18.37	120
Clear Lens (LC)	Stock	Standard	4 ft.	4SNLED-LD4-26SL-LC-UNV-L8XX-CD1-U	2688	21.68	120
Clear Lens (LC)	Stock	Standard	4 ft.	4SNLED-LD4-30SL-LC-UNV-L8XX-CD1-U	3061	25.07	120
Clear Lens (LC)	MTO	Standard	4 ft.	4SNLED-LD4-34SL-LC-UNV-L8XX-CD1-U	3431	28.43	120
Clear Lens (LC)	MTO	Standard	4 ft.	4SNLED-LD4-37SL-LC-UNV-L8XX-CD1-U	3822	32.32	114
Clear Lens (LC)	MTO	Standard	4 ft.	4SNLED-LD4-41SL-LC-UNV-L8XX-CD1-U	4233	36.64	112
Clear Lens (LC)	Stock	Standard	4 ft.	4SNLED-LD4-46SL-LC-UNV-L8XX-CD1-U	4615	41.03	112
Clear Lens (LC)	MTO	Standard	4 ft.	4SNLED-LD4-49SL-LC-UNV-L8XX-CD1-U	4994	45.66	107
Clear Lens (LC)	MTO	Standard	4 ft.	4SNLED-LD4-52SL-LC-UNV-L8XX-CD1-U	5357	50.15	104
Clear Lens (LC)	MTO	Standard	4 ft.	4SNLED-LD4-56SL-LC-UNV-L8XX-CD1-U	5714	56.3	99
Clear Lens (LC)	MTO	High	4 ft.	4SNLED-LD4-60HL-LC-UNV-L8XX-CD1-U	6115	50.71	118

Clear Lens (LC)	MTO	Standard	8 ft.	8TSNLED-LD4-60SL-LC-UNV-L8XX-CD1-U	6122	50.14	120
Clear Lens (LC)	MTO	Standard	8 ft.	8TSNLED-LD4-68SL-LC-UNV-L8XX-CD1-U	6863	56.86	120
Clear Lens (LC)	Stock	Standard	8 ft.	8TSNLED-LD4-75SL-LC-UNV-L8XX-CD1-U	7643	64.64	116
Clear Lens (LC)	Stock	Standard	8 ft.	8TSNLED-LD4-83SL-LC-UNV-L8XX-CD1-U	8466	73.28	113
Clear Lens (LC)	MTO	Standard	8 ft.	8TSNLED-LD4-90SL-LC-UNV-L8XX-CD2-U	9230	82.06	110
Clear Lens (LC)	MTO	Standard	8 ft.	8TSNLED-LD4-98SL-LC-UNV-L8XX-CD2-U	9988	91.32	107
Clear Lens (LC)	MTO	Standard	8 ft.	8TSNLED-LD4-105SL-LC-UNV-L8XX-CD2-U	10714	100.3	105

SNLED Type	Stock* / MTO	Lumen Type	Length	Catalog Logic	Nominal Lumens	Wattage	lm/W
Semi-Frost Lens (LN)	MTO	Standard	2 ft.	2SNLED-LD4-18SL-LN-UNV-L8XX-CD1-U	1901	17	105
Semi-Frost Lens (LN)	MTO	Standard	2 ft.	2SNLED-LD4-22SL-LN-UNV-L8XX-CD1-U	2318	22	101
Semi-Frost Lens (LN)	MTO	Standard	2 ft.	2SNLED-LD4-26SL-LN-UNV-L8XX-CD1-U	2704	23	116

Semi-Frost Lens (LN)	MTO	Standard	4 ft.	4SNLED-LD4-18SL-LN-UNV-L8XX-CD1-U	2032	16	111
Semi-Frost Lens (LN)	MTO	Standard	4 ft.	4SNLED-LD4-22SL-LN-UNV-L8XX-CD1-U	2294	18	120
Semi-Frost Lens (LN)	Stock	Standard	4 ft.	4SNLED-LD4-26SL-LN-UNV-L8XX-CD1-U	2680	22	120
Semi-Frost Lens (LN)	Stock	Standard	4 ft.	4SNLED-LD4-30SL-LN-UNV-L8XX-CD1-U	3052	25	120
Semi-Frost Lens (LN)	MTO	Standard	4 ft.	4SNLED-LD4-34SL-LN-UNV-L8XX-CD1-U	3421	28	120
Semi-Frost Lens (LN)	MTO	Standard	4 ft.	4SNLED-LD4-37SL-LN-UNV-L8XX-CD1-U	3810	32	114
Semi-Frost Lens (LN)	MTO	Standard	4 ft.	4SNLED-LD4-41SL-LN-UNV-L8XX-CD1-U	4220	37	112
Semi-Frost Lens (LN)	Stock	Standard	4 ft.	4SNLED-LD4-46SL-LN-UNV-L8XX-CD1-U	4601	41	112
Semi-Frost Lens (LN)	MTO	Standard	4 ft.	4SNLED-LD4-49SL-LN-UNV-L8XX-CD1-U	4979	46	107
Semi-Frost Lens (LN)	MTO	Standard	4 ft.	4SNLED-LD4-53SL-LN-UNV-L8XX-CD1-U	5341	50	106
Semi-Frost Lens (LN)	MTO	Standard	4 ft.	4SNLED-LD4-56SL-LN-UNV-L8XX-CD1-U	5697	56	99
Semi-Frost Lens (LN)	MTO	High	4 ft.	4SNLED-LD4-60HL-LN-UNV-L8XX-CD1-U	6096	51	118

Semi-Frost Lens (LN)	MTO	Standard	8 ft.	8TSNLED-LD4-60SL-LN-UNV-L8XX-CD1-U	6103	50	120
Semi-Frost Lens (LN)	MTO	Standard	8 ft.	8TSNLED-LD4-68SL-LN-UNV-L8XX-CD1-U	6842	57	120
Semi-Frost Lens (LN)	Stock	Standard	8 ft.	8TSNLED-LD4-75SL-LN-UNV-L8XX-CD1-U	7620	65	116
Semi-Frost Lens (LN)	Stock	Standard	8 ft.	8TSNLED-LD4-83SL-LN-UNV-L8XX-CD1-U	8441	73	113
Semi-Frost Lens (LN)	MTO	Standard	8 ft.	8TSNLED-LD4-91SL-LN-UNV-L8XX-CD2-U	9202	82	111
Semi-Frost Lens (LN)	MTO	Standard	8 ft.	8TSNLED-LD4-98SL-LN-UNV-L8XX-CD2-U	9958	91	107
Semi-Frost Lens (LN)	MTO	Standard	8 ft.	8TSNLED-LD4-106SL-LN-UNV-L8XX-CD2-U	10681	100	106

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

4SNLED-LD4-50SL-LW-UNV-L835-
CD1-U AYC-CHAIN/SET-U

Notes:

Type:**PC**

LAI16-104794

SNLED LENSED**WATTAGE**

SNLED Type	Stock* / MTO	Lumen Type	Length	Catalog Logic	Nominal Lumens	Wattage	lm/W
Full Frost Lens (LW)	MTO	Standard	2 ft.	2SNLED-LD4-16SL-LW-UNV-L8XX-CD1-U	1702	17.13	99
Full Frost Lens (LW)	MTO	Standard	2 ft.	2SNLED-LD4-20SL-LW-UNV-L8XX-CD1-U	2075	21.7	92
Full Frost Lens (LW)	MTO	Standard	2 ft.	2SNLED-LD4-23SL-LW-UNV-L8XX-CD1-U	2421	23.18	104
Full Frost Lens (LW)	MTO	Standard	4 ft.	4SNLED-LD4-16SL-LW-UNV-L8XX-CD1-U	1819	16.21	111
Full Frost Lens (LW)	MTO	Standard	4 ft.	4SNLED-LD4-20SL-LW-UNV-L8XX-CD1-U	2054	18.37	109
Full Frost Lens (LW)	Stock	Standard	4 ft.	4SNLED-LD4-23SL-LW-UNV-L8XX-CD1-U	2399	21.68	111
Full Frost Lens (LW)	Stock	Standard	4 ft.	4SNLED-LD4-27SL-LW-UNV-L8XX-CD1-U	2732	25.07	108
Full Frost Lens (LW)	MTO	Standard	4 ft.	4SNLED-LD4-30SL-LW-UNV-L8XX-CD1-U	3062	28.43	106
Full Frost Lens (LW)	MTO	Standard	4 ft.	4SNLED-LD4-33SL-LW-UNV-L8XX-CD1-U	3411	32.32	105
Full Frost Lens (LW)	MTO	Standard	4 ft.	4SNLED-LD4-37SL-LW-UNV-L8XX-CD1-U	3778	36.64	101
Full Frost Lens (LW)	Stock	Standard	4 ft.	4SNLED-LD4-41SL-LW-UNV-L8XX-CD1-U	4119	41.03	100
Full Frost Lens (LW)	MTO	Standard	4 ft.	4SNLED-LD4-44SL-LW-UNV-L8XX-CD1-U	4457	45.66	96
Full Frost Lens (LW)	MTO	Standard	4 ft.	4SNLED-LD4-47SL-LW-UNV-L8XX-CD1-U	4781	50.15	94
Full Frost Lens (LW)	MTO	Standard	4 ft.	4SNLED-LD4-50SL-LW-UNV-L8XX-CD1-U	5100	56.3	89
Full Frost Lens (LW)	MTO	High	4 ft.	4SNLED-LD4-54HL-LW-UNV-L8XX-CD1-U	5458	50.71	106
Full Frost Lens (LW)	MTO	Standard	8 ft.	8TSNLED-LD4-54SL-LW-UNV-L8XX-CD1-U	5464	50.14	108
Full Frost Lens (LW)	MTO	Standard	8 ft.	8TSNLED-LD4-61SL-LW-UNV-L8XX-CD1-U	6125	56.86	107
Full Frost Lens (LW)	Stock	Standard	8 ft.	8TSNLED-LD4-67SL-LW-UNV-L8XX-CD1-U	6822	64.64	104
Full Frost Lens (LW)	Stock	Standard	8 ft.	8TSNLED-LD4-74SL-LW-UNV-L8XX-CD1-U	7556	73.28	101
Full Frost Lens (LW)	MTO	Standard	8 ft.	8TSNLED-LD4-81SL-LW-UNV-L8XX-CD2-U	8238	82.06	99
Full Frost Lens (LW)	MTO	Standard	8 ft.	8TSNLED-LD4-88SL-LW-UNV-L8XX-CD2-U	8915	91.32	96
Full Frost Lens (LW)	MTO	Standard	8 ft.	8TSNLED-LD4-95SL-LW-UNV-L8XX-CD2-U	9562	100.3	95

* Stocked in either 3500K or 4000K

PHOTOMETRICS

See website for IES/photometric files

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (12,000 hours)	Theoretical L70 (Hours)
25°C	92.55%	303,000

Max Ambient temp in compliance with CSA: 40°C

**Job Name:**WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)**Catalog Number:**4SNLED-LD4-50SL-LW-UNV-L835-
CD1-U AYC-CHAIN/SET-U

Notes:

Type:**PC**

LAI16-104794

SNLED LENSED**ORDERING INFORMATION**

SAMPLE NUMBER: 4SNLED-LD4-46SL-LN-UNV-L835-CD1-U

Length 2=2' Length 4=4' Length 8=8' Length	Series SNLED=Commercial LED Striplight ⁽¹⁰⁾	Lamp Type LD4=LED 4.0	Optic LC=Clear Lens LN=Semi-Frost Lens - Narrow LW=Full Frost Lens - Wide	Voltage UNV=Universal Voltage 120-277 347=347V 480=480V ⁽⁴⁾	Driver Type CD=0-10V Dimming Driver (10% - 100% Dimming) HCD=0-10V Dimming Driver (1% - 100% Dimming) ⁽¹³⁾ SD=Step-dim (Bi Level) ^(4,11) SLTD=Fifth Light (DALI) Driver ^(4,6,11)	Packaging U=Unit Pack
LED Lumens Output ⁽²⁾ Stocked Lumen Packages - LC ⁽⁹⁾ 26SL=2600 ⁽⁸⁾ 30SL=3000 46SL=4600 75SL=7500 83SL=8300 MTQ Lumen Packages - LC 18SL=1800 ⁽⁸⁾ 22SL=2200 ⁽⁸⁾ 34SL=3400 37SL=3700 41SL=4100 49SL=4900 52SL=5200 56SL=5600 60SL=6000 60HL=6000 ⁽¹⁾ 68SL=6800 90SL=9000 ⁽³⁾ 98SL=9800 ⁽³⁾ 105SL=10,500 ⁽³⁾ 130HL=13,000 ^{(3),(14)}	Stocked Lumen Packages - LN ⁽⁹⁾ 26SL=2600 ⁽⁸⁾ 30SL=3000 32HL=3200 46SL=4600 75SL=7500 83SL=8300 MTQ Lumen Packages - LN 18SL=1800 ⁽⁸⁾ 22SL=2200 ⁽⁸⁾ 34SL=3400 37SL=3700 41SL=4100 49SL=4900 53SL=5300 56SL=5600 60SL=6000 60HL=6000 ⁽¹⁾ 68SL=6800 91SL=9100 ⁽³⁾ 98SL=9800 ⁽³⁾ 106SL=10,600 ⁽³⁾	Stocked Lumen Packages - LW ⁽⁹⁾ 23SL=2300 ⁽⁸⁾ 27SL=2700 41SL=4100 67SL=6700 74SL=7400 MTQ Lumen Packages - LW 16SL=1600 ⁽⁸⁾ 20SL=2000 ⁽⁸⁾ 30SL=3000 33SL=3300 37SL=3700 44SL=4400 47SL=4700 50SL=5000 54SL=5400 54HL=5400 ⁽¹⁾ 61SL=6100 81SL=8100 ⁽³⁾ 88SL=8800 ⁽³⁾ 95SL=9500 ⁽³⁾	Options Emergency EL7W=7-watt, 120V-277V emergency battery pack installed ^{(7),(4)} EL14W=14-watt 120V-277V emergency battery pack installed ^{(7),(4)} GTD2=Bodine Generator Transfer Device ⁽¹⁵⁾ ETS2=IOTA Emergency Transfer Switch ⁽¹⁵⁾ Wiring PI/CPI=Plug-in Option Motion Sensors LB-ERMS360=360° Low Bay Motion Sensor - End of Row LB-MRMS360=360° Low Bay Motion Sensor - Middle of Row HB-ERMS360=360° High Bay Motion Sensor - End of Row ⁽⁶⁾ HB-MRMS360=360° High Bay Motion Sensor - Middle of Row ⁽⁶⁾ CCT L830=3000K L835=3500K L840=4000K L850=5000K	Number of Drivers 1=1 Driver 2=2 Drivers	ACCESSORIES (Order Separately) AYC-Chain/Set=36" Chain Hanger (Use 1 set per fixture) SCF=Fixed Stem Set (Specify Length) SCS=Swivel Stem Set (Specify Length) SCA=Adjustable 48" Stem Set EYE CHAIN SET/3FT=Eye Bolt Chain (Use 1 set per fixture) WG/SNF-2FT=2' Wire Guard WG/SNF-4FT=4' Wire Guard A1B/Spacer-U=Spacer 1-1/2" to 2-1/2" from ceiling (Use 2 per fixture) TOGGLE=Single Toggle No. 2 (Specify Length) Y-TOGGLE=Y Toggle No. 2 (Specify Length)	

NOTES: ⁽¹⁾ 4 ft. only. ⁽²⁾ Nominal lumen values. ⁽³⁾ Two drivers required. ⁽⁴⁾ 4 ft. and 8 ft. only. ⁽⁵⁾ Motion Sensor offers dimmability. ⁽⁶⁾ For a complete listing of Fifth Light products, visit www.eaton.com/lightingsystems ⁽⁷⁾ With integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7=700 lumens). IES-format photometry for luminaire under emergency operation available. ⁽⁸⁾ 2 ft. and 4 ft. only. ⁽⁹⁾ Stocked by mid April 2015. ⁽¹⁰⁾ DesignLights Consortium™ Qualified and classified for DLC Standard (all lumen packages), refer to www.designlights.org for details. ⁽¹¹⁾ 3700 lumen and above. ⁽¹²⁾ Step dimming not available. ⁽¹³⁾ HCD driver option not available with 6100, 6700, 7400, 7500 and 8300 lumen packages. ⁽¹⁴⁾ Not currently listed on DLC QPL. ⁽¹⁵⁾ Used to transfer fixture to secondary power source for life-safety operation. When used with a dimming fixture, two devices are required to ensure control is disabled while operating under emergency power.

Specifications & dimensions subject to change without notice. Consult your Eaton Representative for availability and ordering information.

SHIPPING DATA

Length.	Wt.
2 ft.	4.3 lbs.
4 ft.	8.2 lbs.
8 ft.	15.1 lbs.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

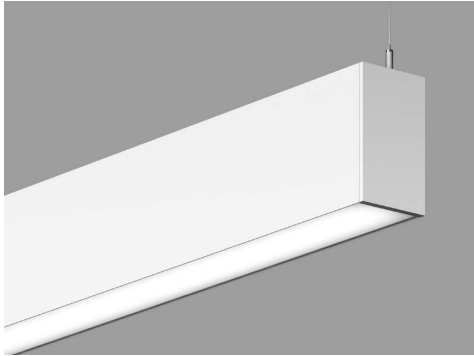
Catalog Number:

MP1331VIA4PDIWS-HLO-LGO-
LED-80-750-1000-30-8'-277-D-1-W-CU

Notes:

Type:**PD8**

LAI16-104794

MP1279**VIA 4 LED PENDANT DIRECT/INDIRECT**

Shown with HLO optics

DESCRIPTION

Via 4 is the flexible linear LED luminaire system for pendant, surface and recessed or in-wall installation, whether as discrete luminaires, continuous runs or patterns. Via 4 features numerous high-efficiency optical configurations, including separately controlled indirect/direct, wall wash and asymmetric distributions, as well as a wide range of electrical, control and trim options. See separate spec sheets for patterns and other available mountings.



LUMENWERX
WWW.LUMENWERX.COM

PROJECT: _____

TYPE: _____

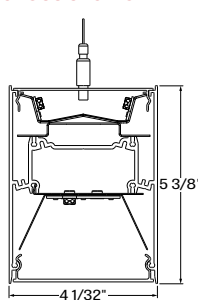
NOTES: _____

ORDER GUIDE

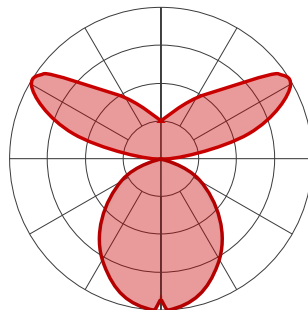
MP1279VIA4PDI	HLO	LGO	LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MP1279VIA4PDI - via 4" pendant direct/indirect	HLO - High-Efficiency Lambertian Optic	LGO - Wide spread Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - low output 500lm/ft 750 - med. output 750lm/ft 1000 - high output 1000lm/ft 1200 - ultra high output 1200lm/ft

INDIRECT LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL
500 - low output 500lm/ft 750 - medium output 750lm/ft Lower lumen packages are available, consult factory	30 - 3000k 35 - 3500k 40 - 4000k	4' Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires /EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device

ELECTRICAL	MOUNTING	FINISH	OPTIONS
1 - 1 circuit 2 - 2 circuits +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" air craft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) For all other mountings refer to the Pendant Mounting Guide.	W - matte white AL - aluminum CF# - custom finish specify RAL#	9/16 TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip

CROSS SECTION

MP1279 - air craft cable



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-2'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA2**

LAI16-104794

IC - RATED

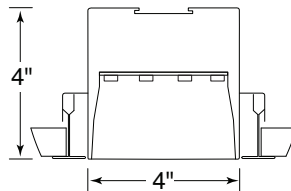
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

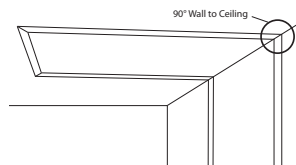
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

2'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

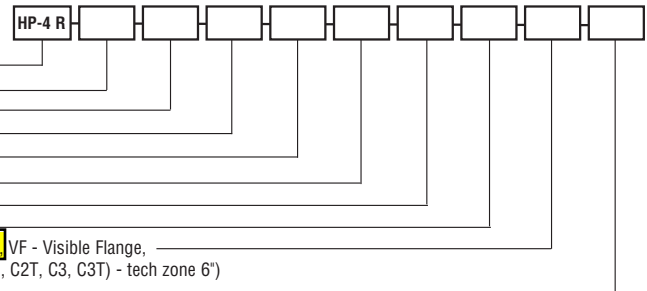
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-2'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA2**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

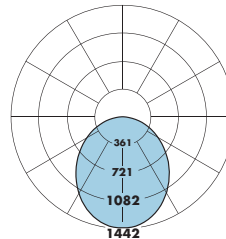
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-2'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA2**

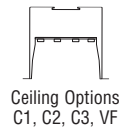
LAI16-104794



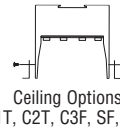
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

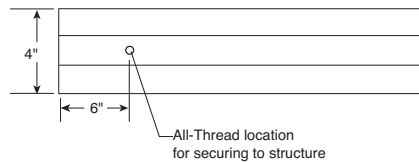
High Performance 4" Aperture (HP-4) - Recessed

HOUSING

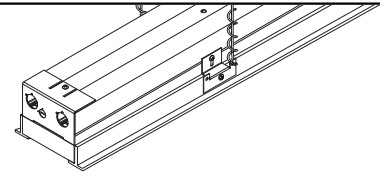
Housing With
Extruded Flange (V1)



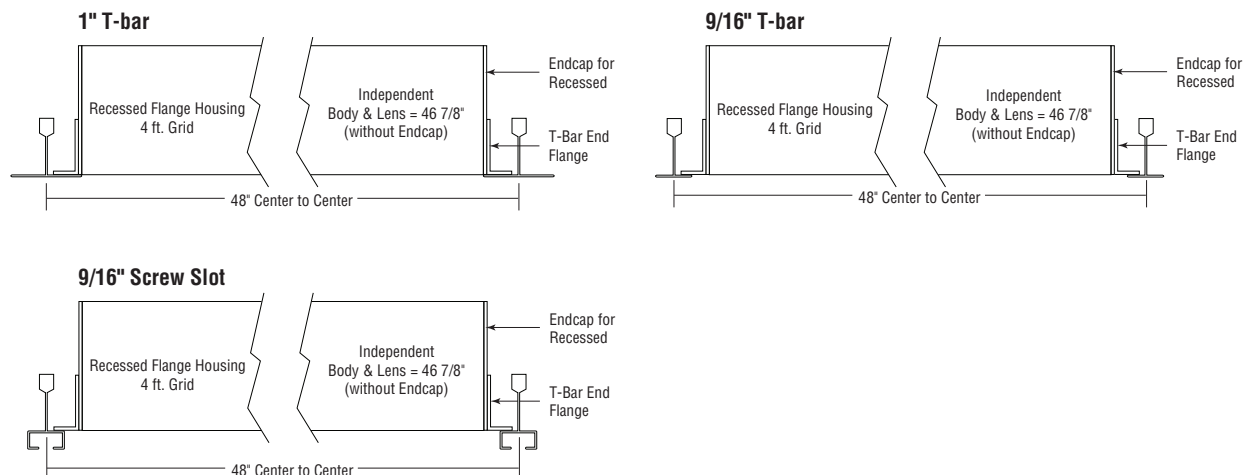
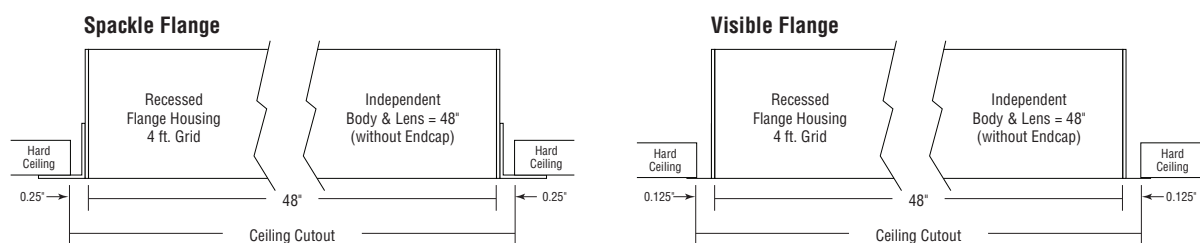
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-2'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA2**

LAI16-104794

IC - RATED

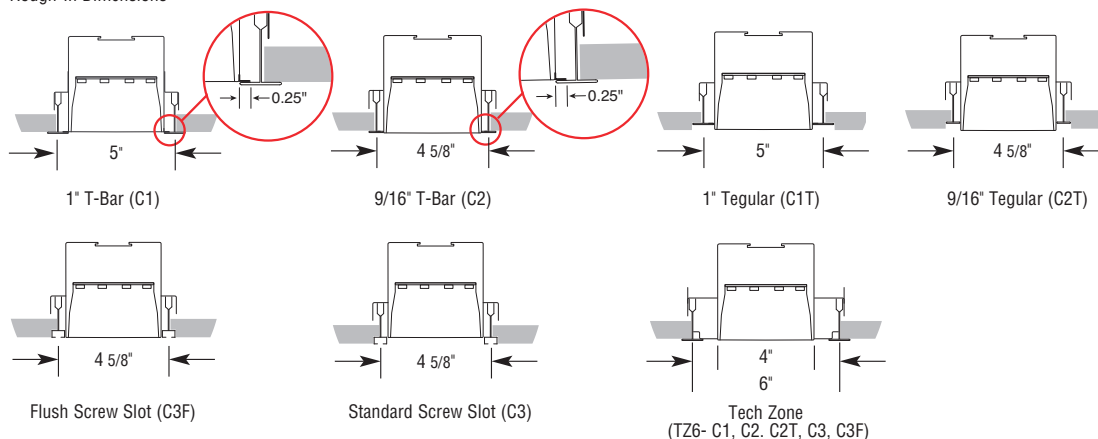
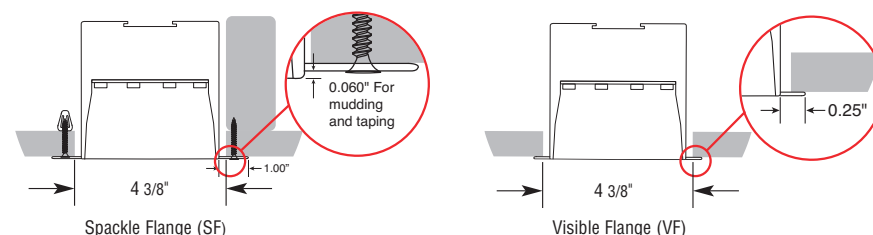
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-3'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA3**

LAI16-104794

IC - RATED

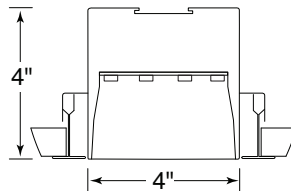
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

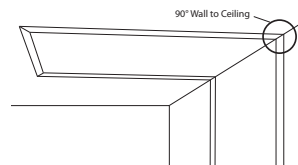
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

3'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

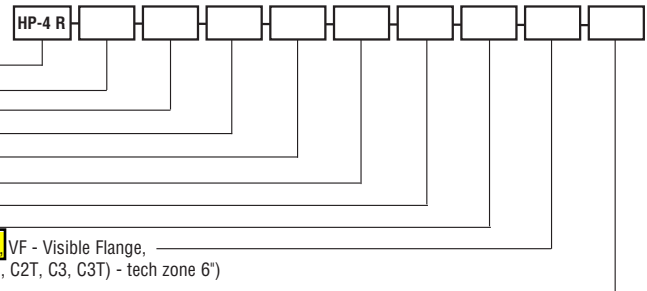
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-3'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA3**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

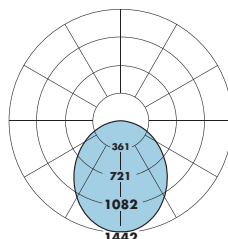
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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Notes:

Type:**RA3**

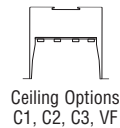
LAI16-104794



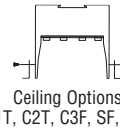
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FINELITE

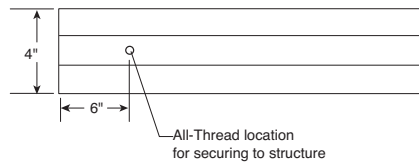
High Performance 4" Aperture (HP-4) - Recessed

HOUSING

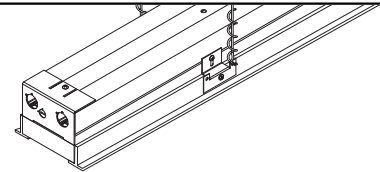
Housing With
Extruded Flange (V1)



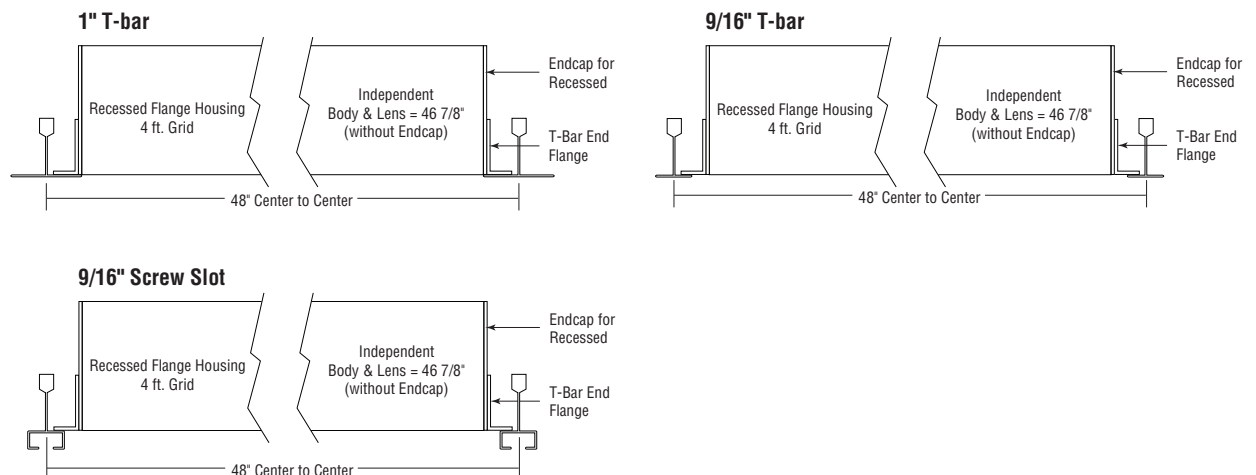
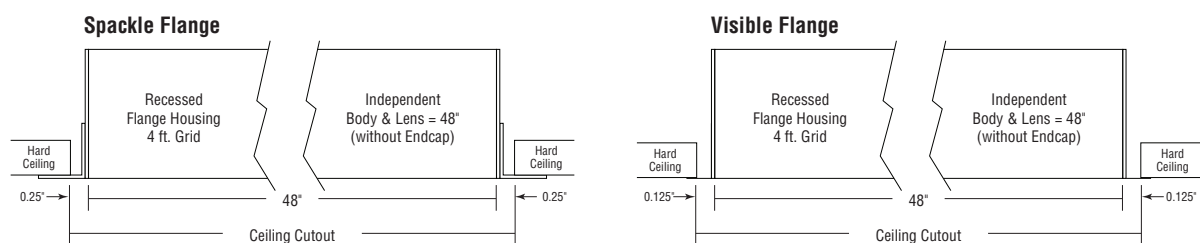
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

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Catalog Number:

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DIM

Notes:

Type:**RA3**

LAI16-104794

IC - RATED

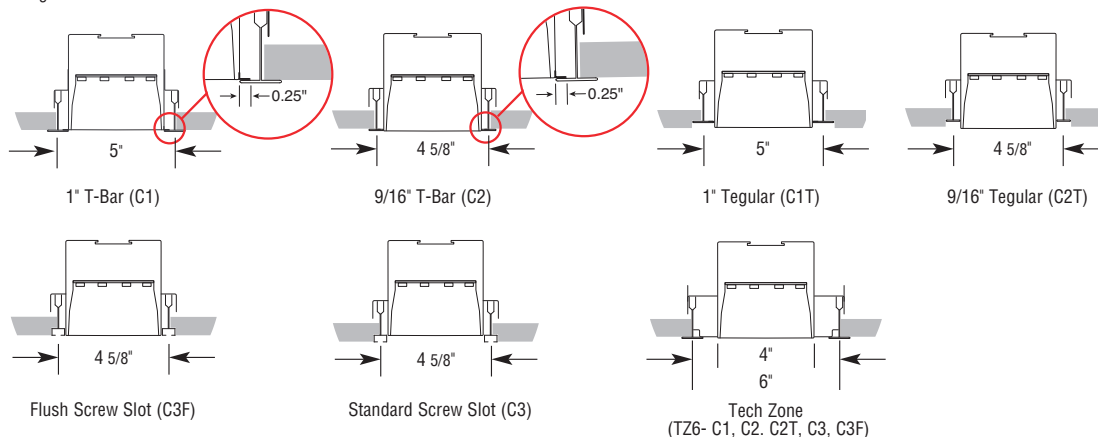
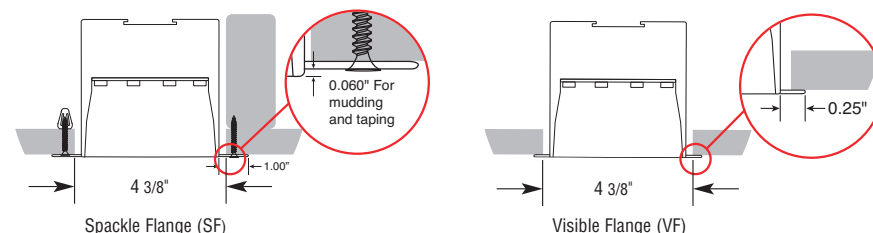
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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Catalog Number:

HP-4-R-4'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA4**

LAI16-104794

IC - RATED

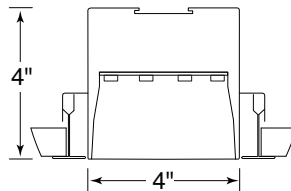
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

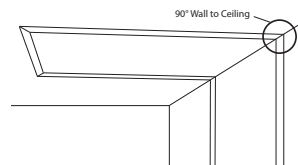
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

4'

Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)

*Contact factory for switching options.

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Catalog Number:

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DIM

Notes:

Type:**RA4**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

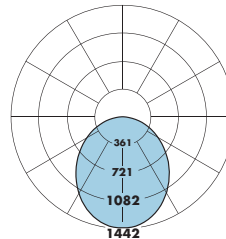
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

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Notes:

Type:**RA4**

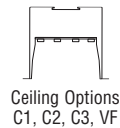
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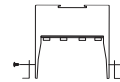
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High Performance 4" Aperture (HP-4) - Recessed

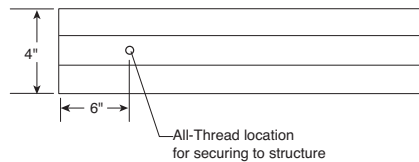
HOUSING

Housing With
Extruded Flange (V1)



Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

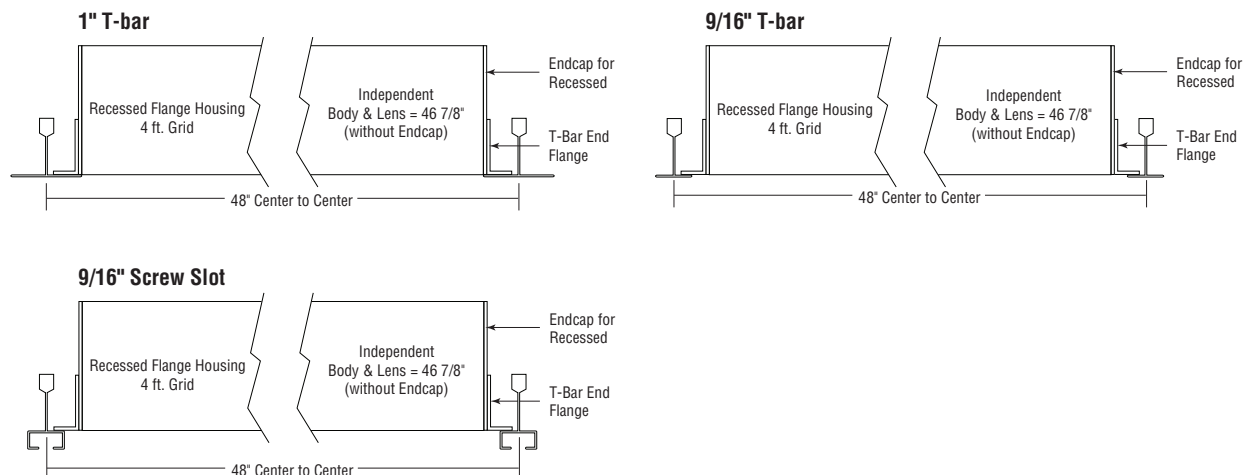
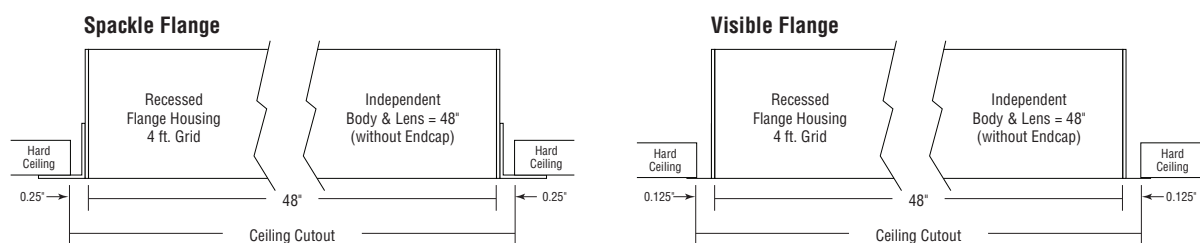
Ceiling Options
C1T, C2T, C3F, SF, TZ6

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

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Notes:

Type:**RA4**

LAI16-104794

IC - RATED

LED



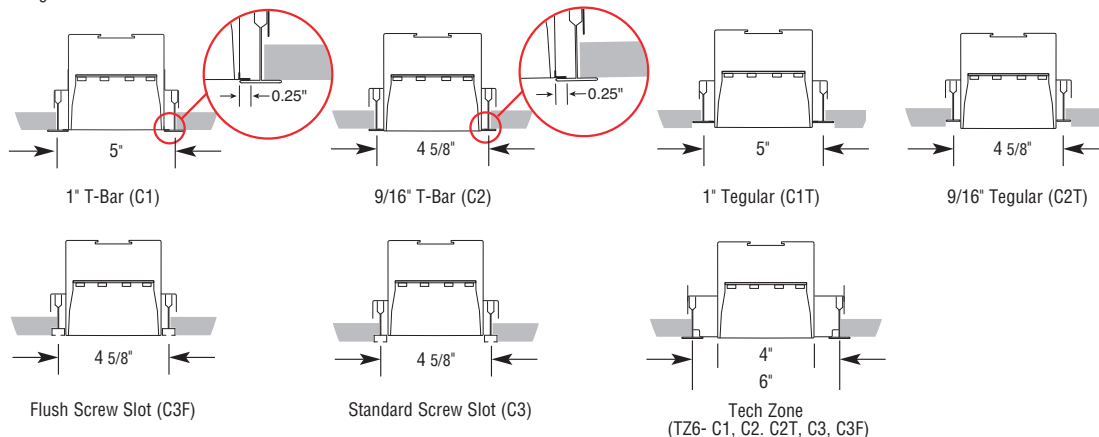
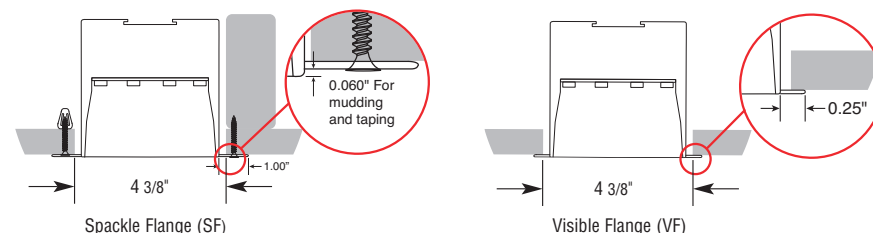
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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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(SAINT LOUIS)

Catalog Number:

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DIM

Notes:

Type:**RA6**

LAI16-104794

IC - RATED

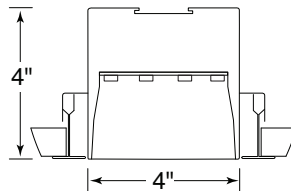
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

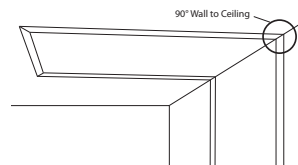
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting
10 working days**TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

6'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

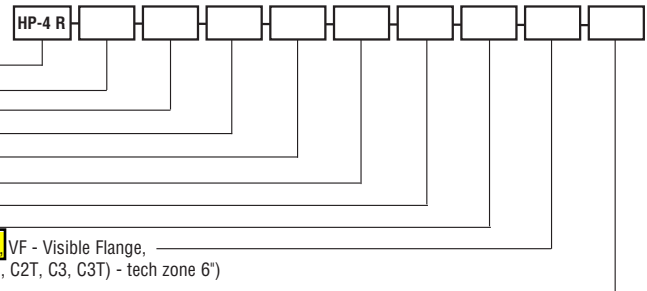
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-6'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA6**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

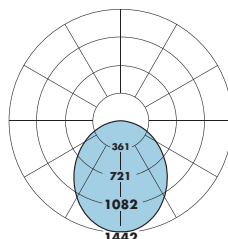
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-6'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA6**

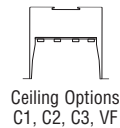
LAI16-104794



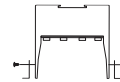
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

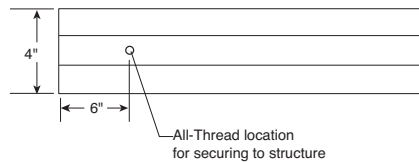
HOUSING

Housing With
Extruded Flange (V1)

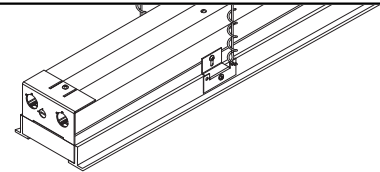


Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

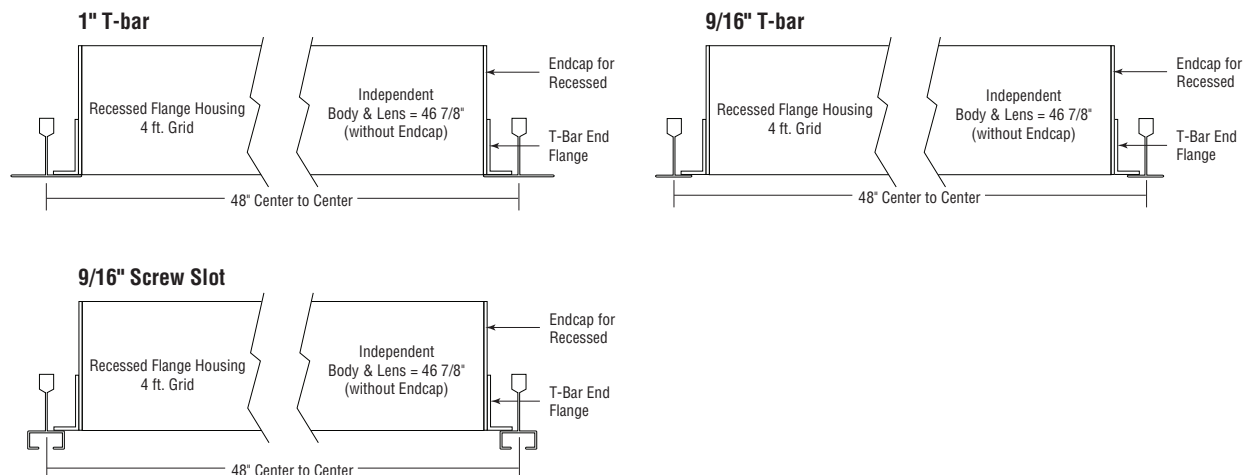
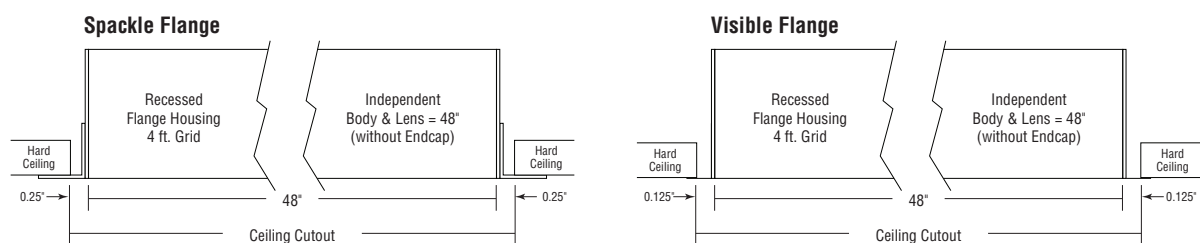
Ceiling Options
C1T, C2T, C3F, SF, TZ6

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-6'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA6**

LAI16-104794

IC - RATED

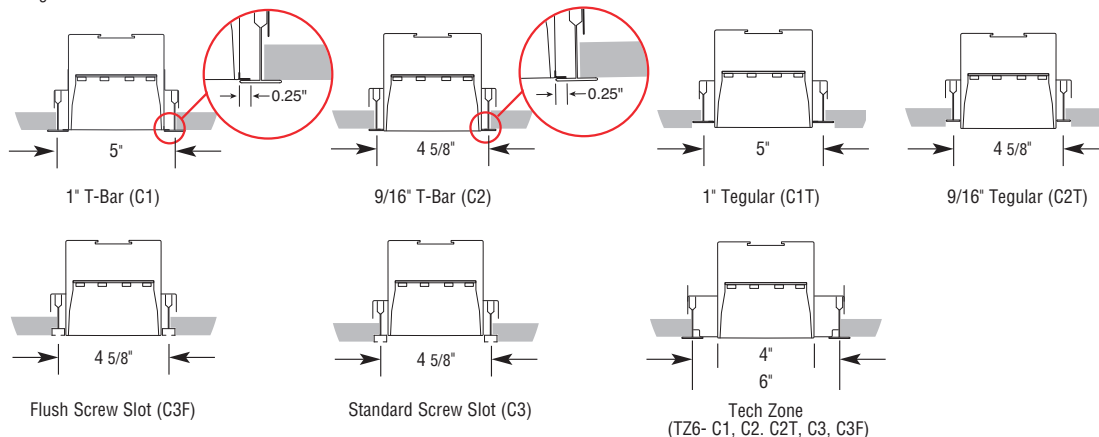
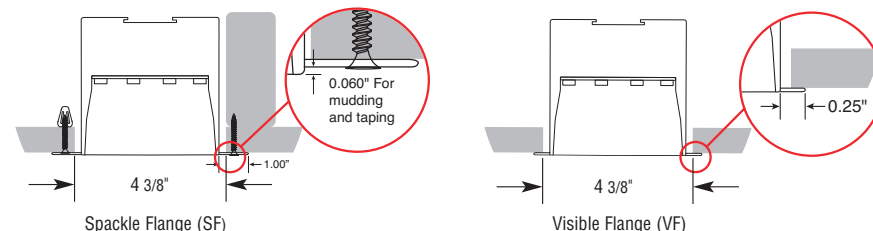
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA8**

LAI16-104794

IC - RATED

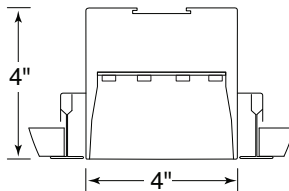
LED



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FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

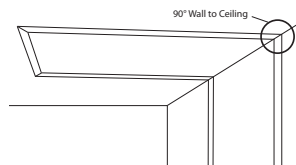
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

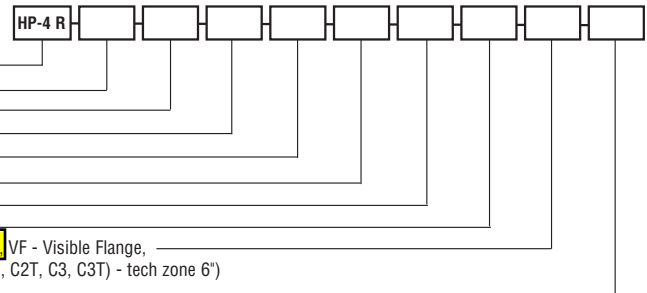
ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

8'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)Light Output (S - Standard, B - Boosted Standard, **H - High**, V - Very High)LED CRI (**8 - 80 CRI min (standard)**, 9 - 90 CRI min)LED Color Temperature (**30 - 3000K**, 35 - 3500K, 40 - 4000K)Downlight Diffuser Option (**F - Flush (standard)**)Voltage (120V, **277V**)Circuiting (**SC - Single Circuit**)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, **C3F - flush screw slot**, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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(SAINT LOUIS)

Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA8**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

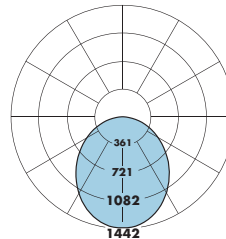
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

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Engineer: WILLIAM TAO AND ASSOCIATES
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Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA8**

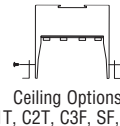
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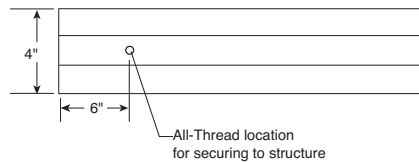
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****HOUSING**

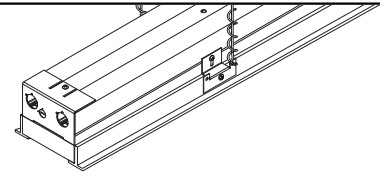
Housing With
Extruded Flange (V1)



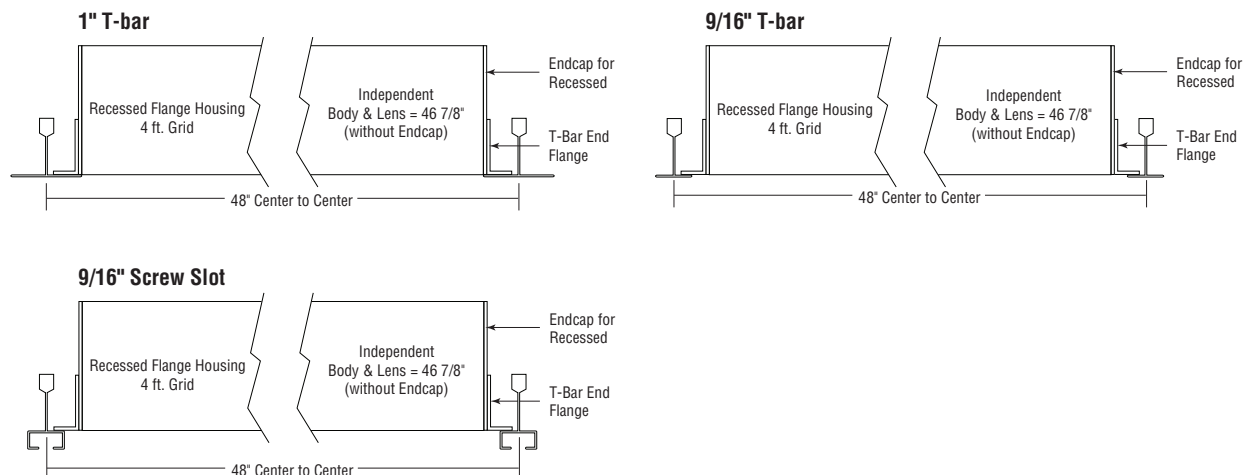
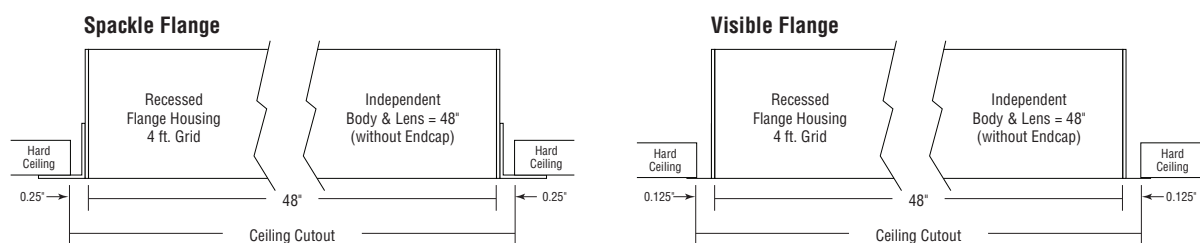
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-8"-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA8**

LAI16-104794

IC - RATED

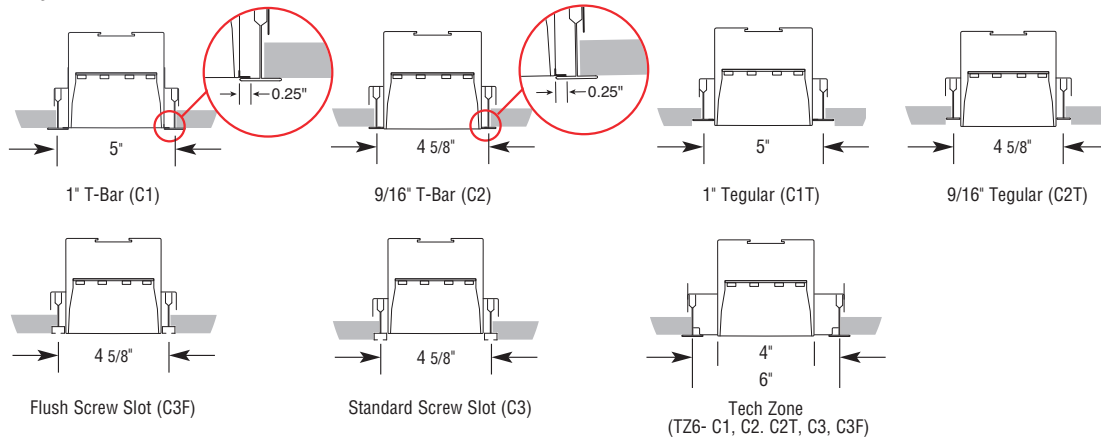
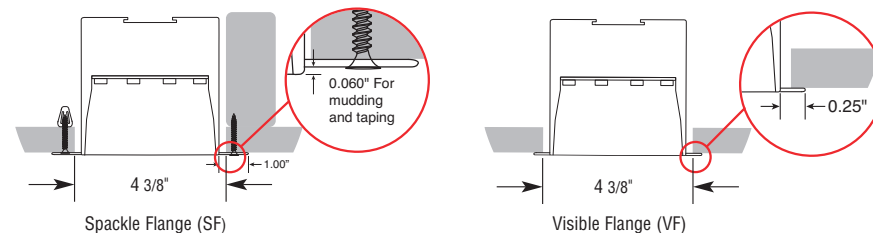
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR
Rough-In Dimensions**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-10'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA10**

LAI16-104794

IC - RATED

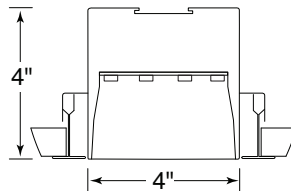
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

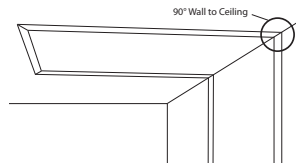
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting
10 working days**TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

10'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

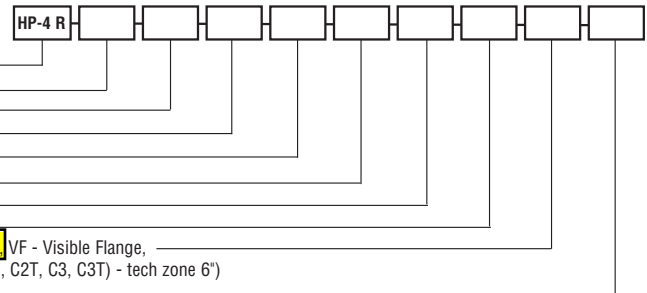
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-10'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA10**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

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High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

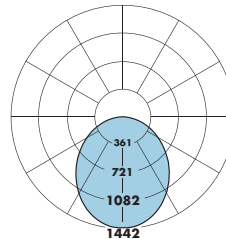
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-10'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA10**

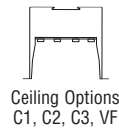
LAI16-104794



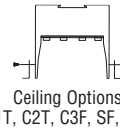
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FINELITE

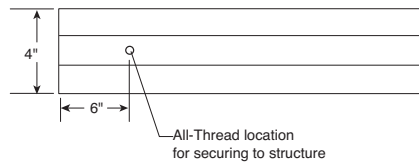
High Performance 4" Aperture (HP-4) - Recessed

HOUSING

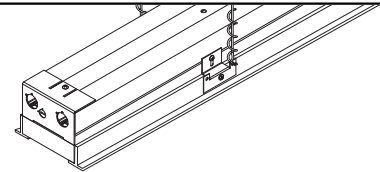
Housing With
Extruded Flange (V1)



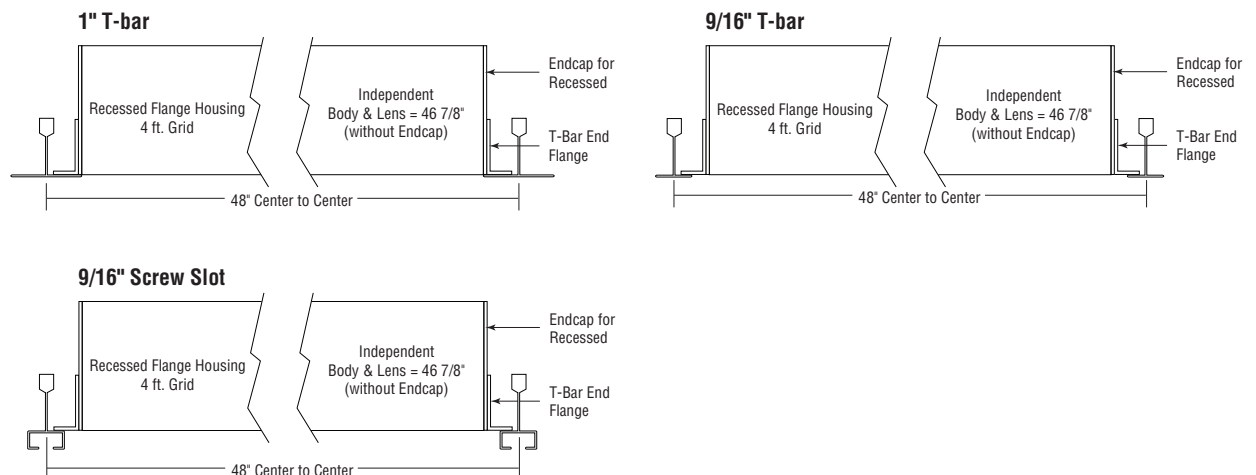
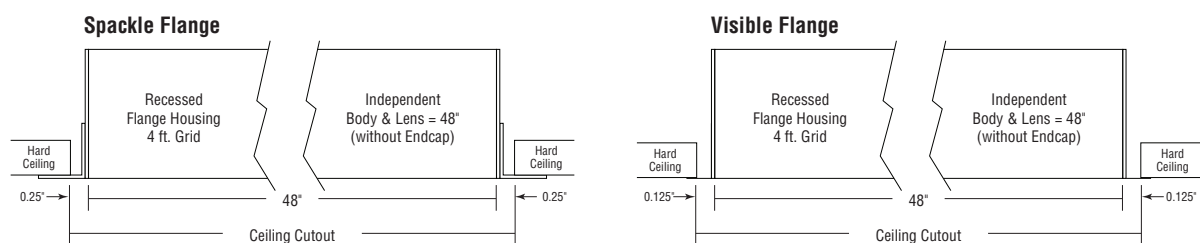
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-10"-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA10**

LAI16-104794

IC - RATED

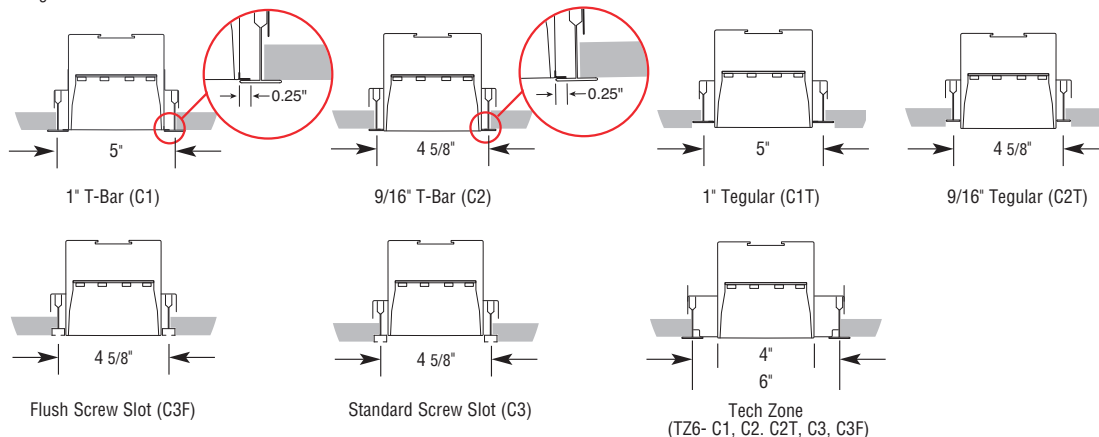
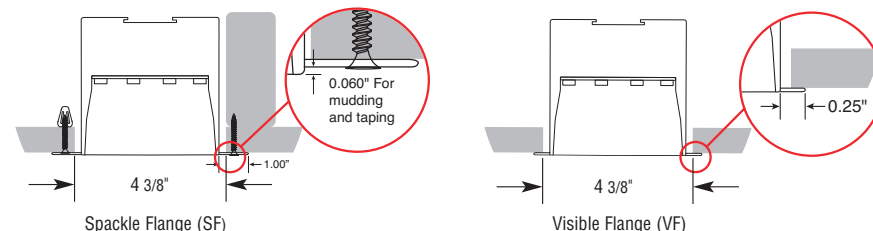
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-12'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA12**

LAI16-104794

IC - RATED

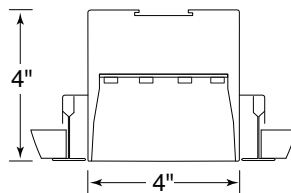
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

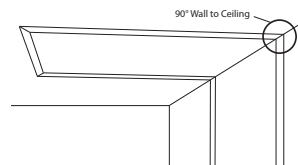
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

12'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

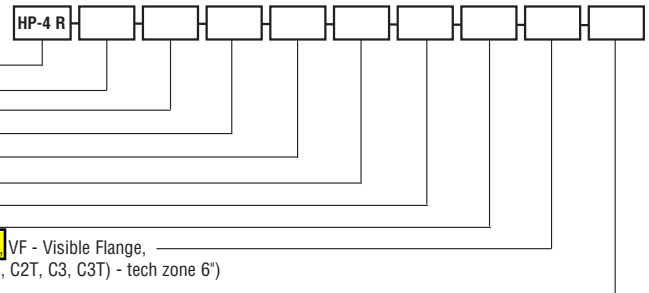
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-12'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA12**

LAI16-104794



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High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

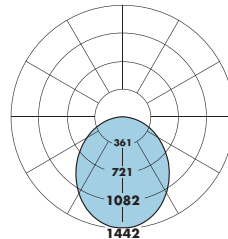
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-12'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA12**

LAI16-104794



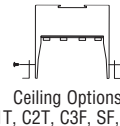
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FINELITE

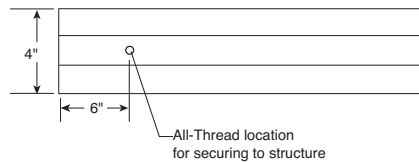
High Performance 4" Aperture (HP-4) - Recessed

HOUSING

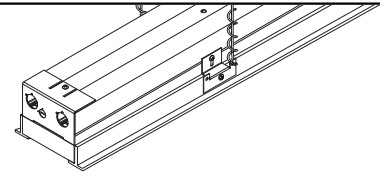
Housing With
Extruded Flange (V1)



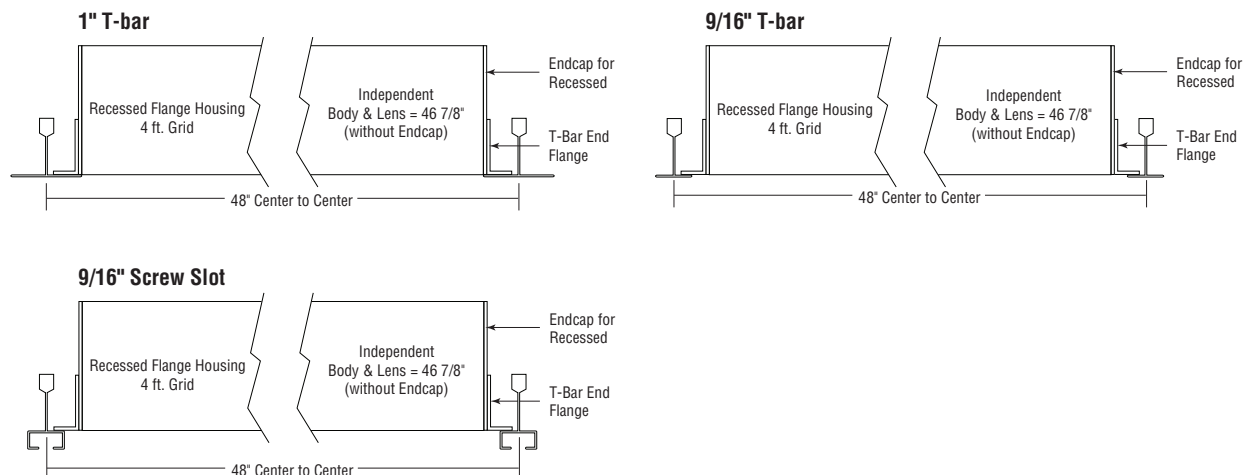
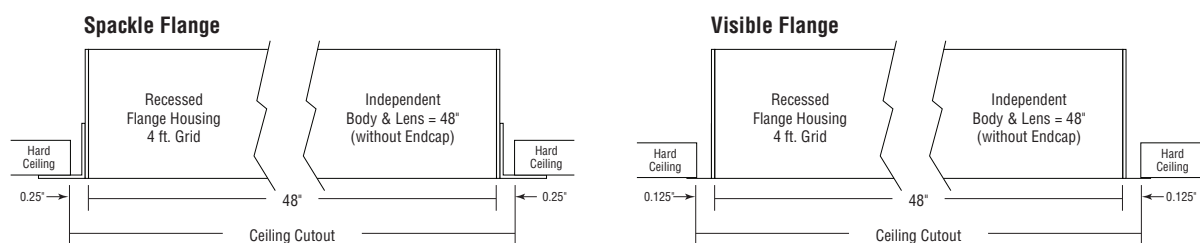
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-12'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA12**

LAI16-104794

IC - RATED

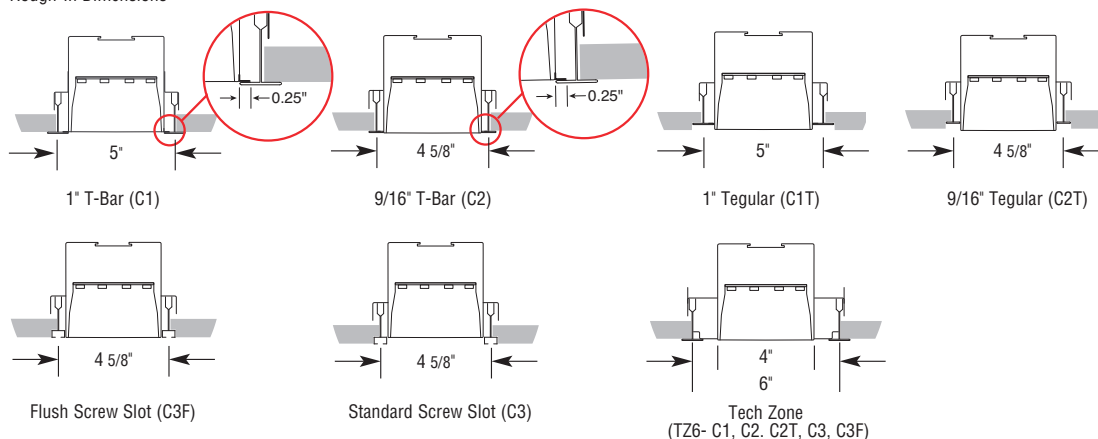
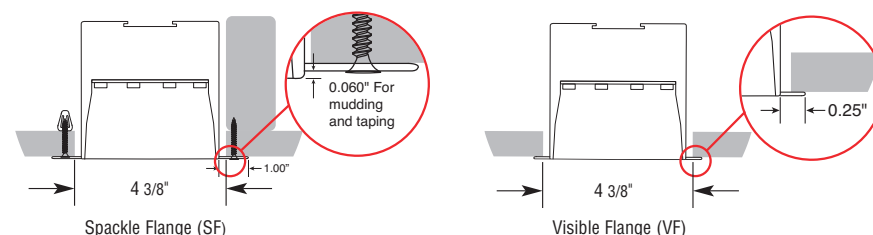
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-16'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA16**

LAI16-104794

IC - RATED

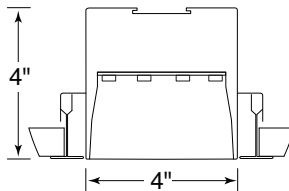
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

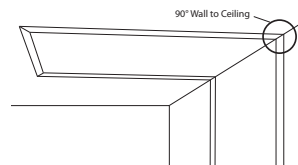
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

16'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

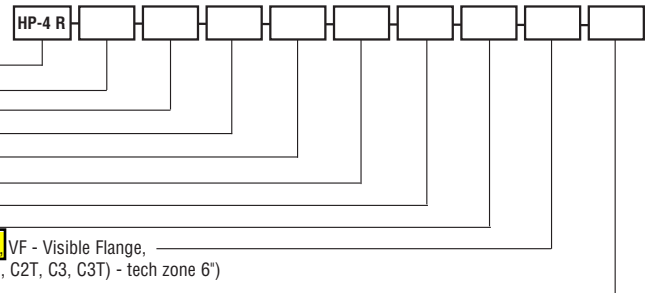
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-16'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA16**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

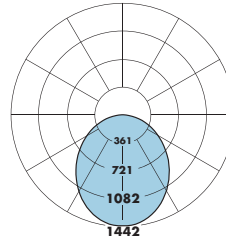
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-16'-H-3000K-F-277V-SC-C3F-
DIM

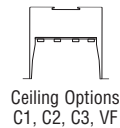
Notes:

Type:**RA16**

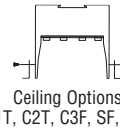
LAI16-104794



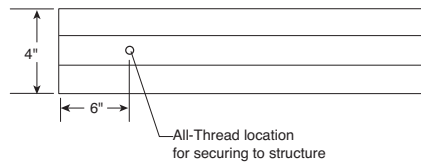
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****HOUSING**

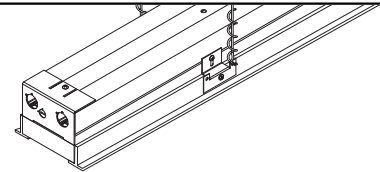
Housing With
Extruded Flange (V1)



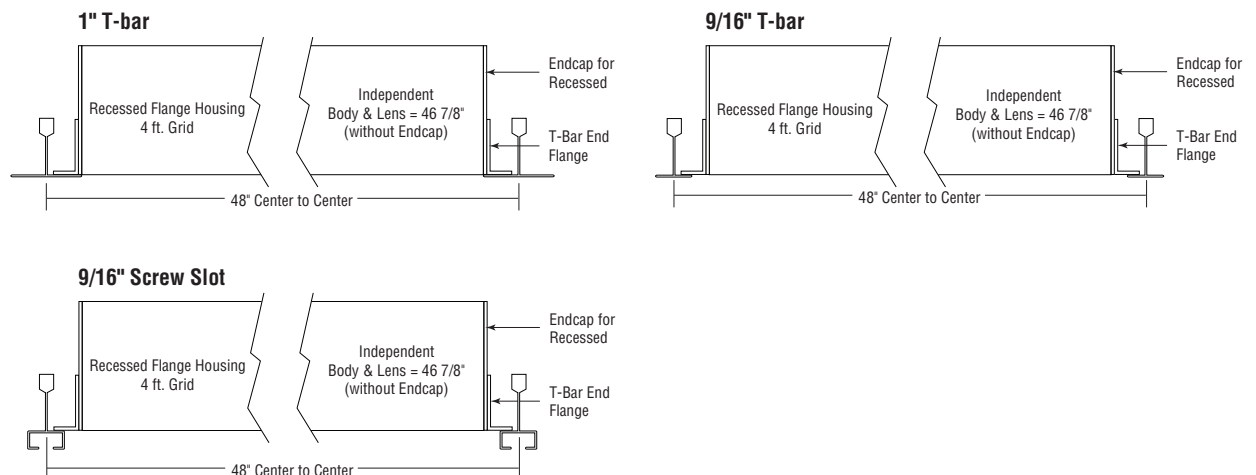
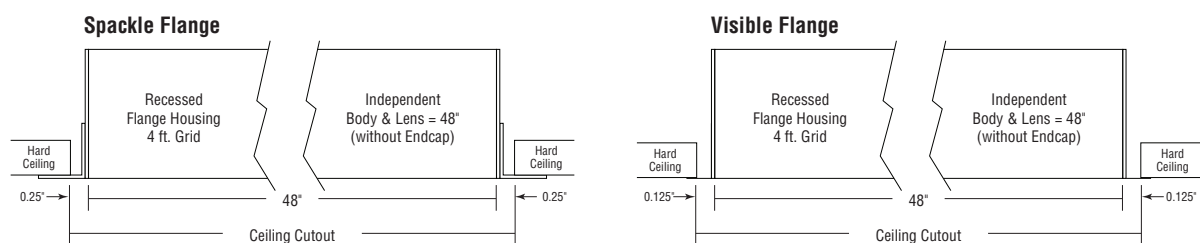
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-16'-H-3000K-F-277V-SC-C3F-
DIM

Notes:

Type:**RA16**

LAI16-104794

IC - RATED

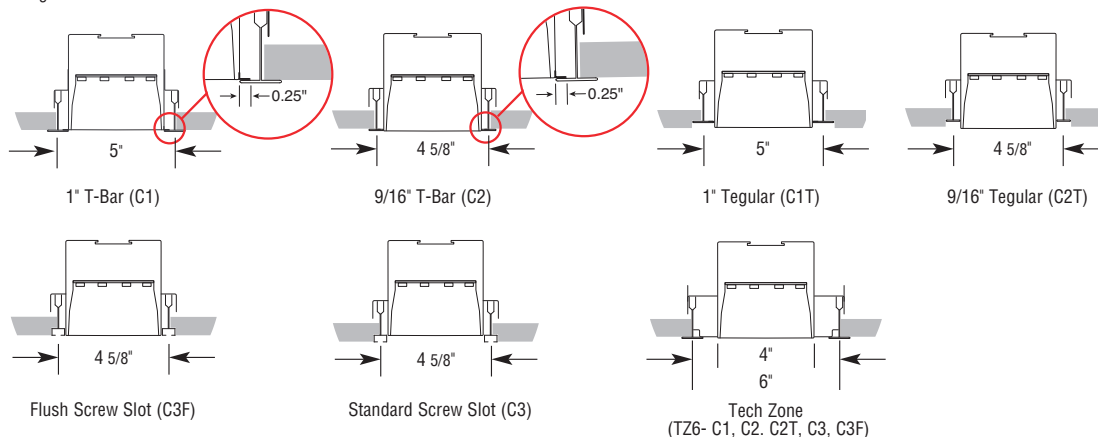
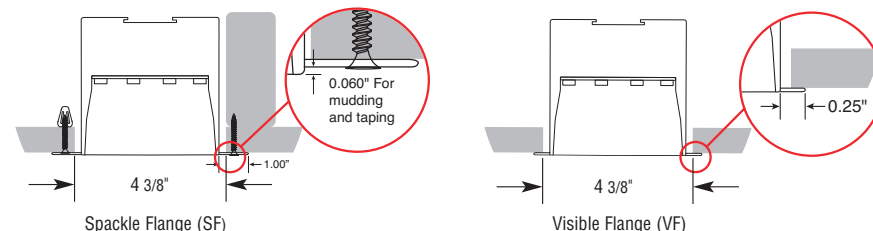
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-18'-H-3000K-F-277V-2C- C3F-DIM
12FT ON 1-CIRCUIT/6FT ON SEP CIRCUIT
NEED 6FT ON ONE FEED/CIRC AND THE
OTHER 12FT ON ANOTHER

Type:**RA18**

LAI16-104794

IC - RATED

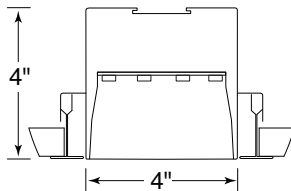
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

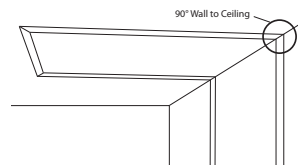
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

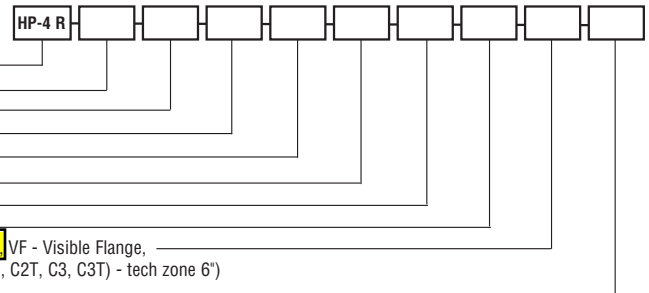
ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

18'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)Light Output (S - Standard, B - Boosted Standard, **H - High**, V - Very High)LED CRI (**8 - 80 CRI min (standard)**, 9 - 90 CRI min)LED Color Temperature (**30 - 3000K**, 35 - 3500K, 40 - 4000K)Downlight Diffuser Option (**F - Flush (standard)**)Voltage (120V, **277V**)Circuiting (**SC - Single Circuit**)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, **C3F - flush screw slot**, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-18'-H-3000K-F-277V-2C- C3F-DIM
12FT ON 1-CIRCUIT/6FT ON SEP CIRCUIT
NEED 6FT ON ONE FEED/CIRC AND THE
OTHER 12FT ON ANOTHER

Type:**RA18**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****PHOTOMETRY**

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

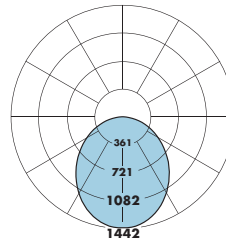
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-18'-H-3000K-F-277V-2C- C3F-DIM
12FT ON 1-CIRCUIT/6FT ON SEP CIRCUIT
NEED 6FT ON ONE FEED/CIRC AND THE
OTHER 12FT ON ANOTHER

Type:**RA18**

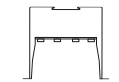
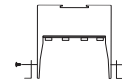
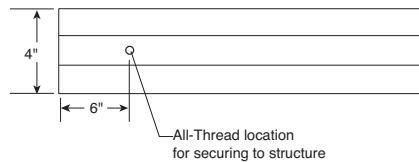
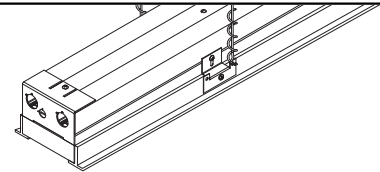
LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

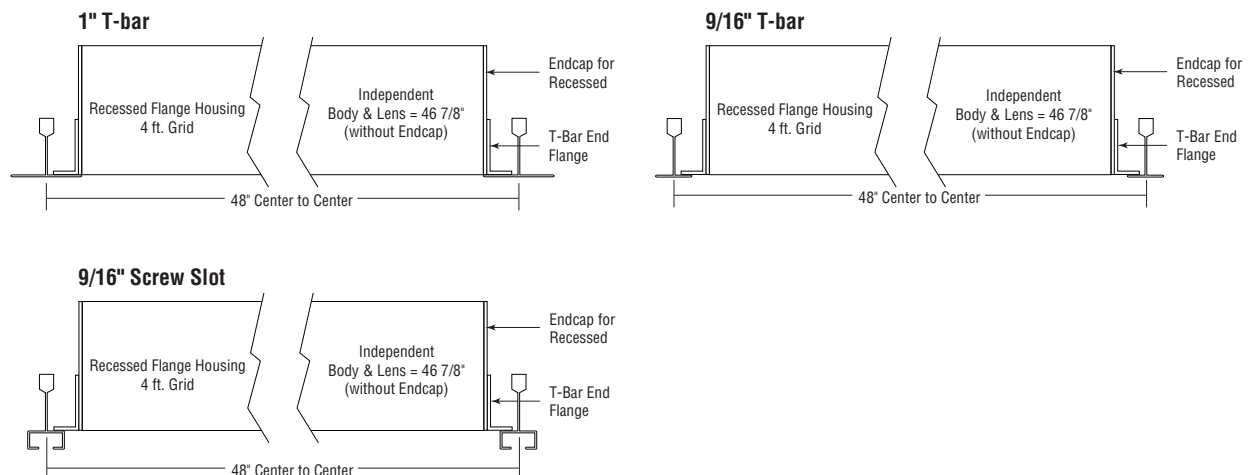
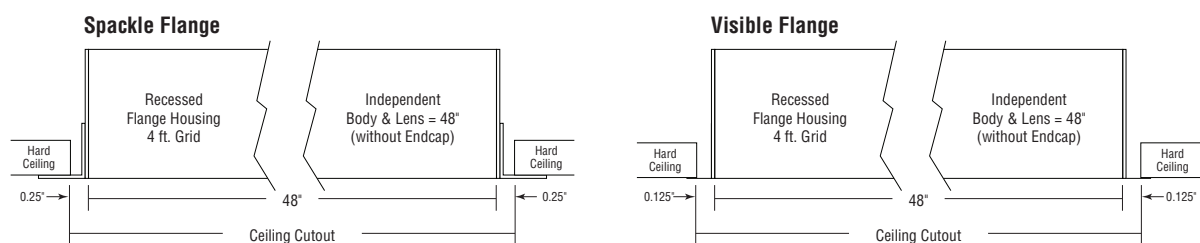
High Performance 4" Aperture (HP-4) - Recessed

HOUSINGHousing With
Extruded Flange (V1)Ceiling Options
C1, C2, C3, VFHousing Without
Extruded Flange (V2)
Ceiling Hardware AttachedCeiling Options
C1T, C2T, C3F, SF, TZ6All-Thread location
for securing to structure**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-18'-H-3000K-F-277V-2C- C3F-DIM
12FT ON 1-CIRCUIT/6FT ON SEP CIRCUIT
NEED 6FT ON ONE FEED/CIRC AND THE
OTHER 12FT ON ANOTHER

Type:**RA18**

LAI16-104794

IC - RATED

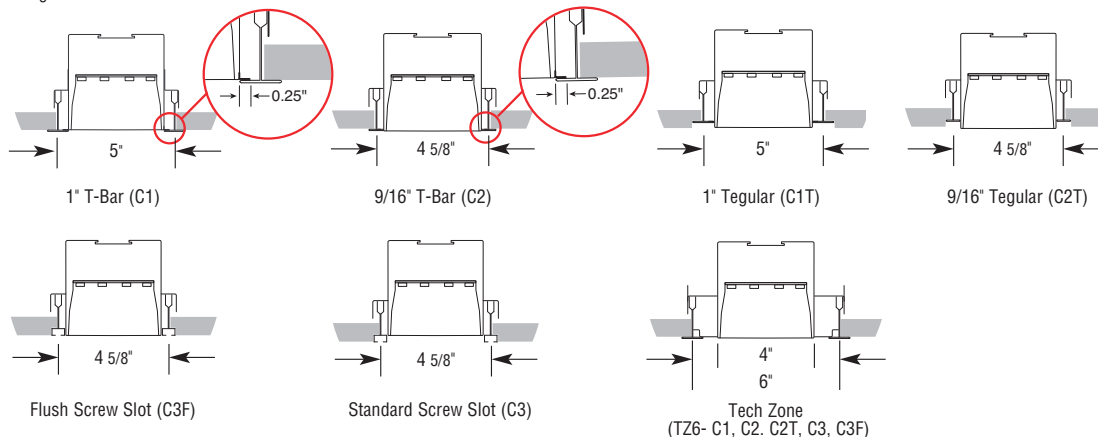
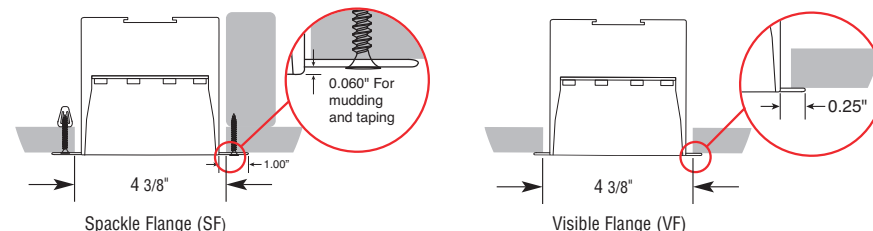
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-68'-H-3000K-F-277V-2C- C2T-
DIM ONE LEG OF FOUR ON SEP
CIRCUIT ONE 10FT LEG ON A
SEPERATE FEED/CIR

Type:**RA24**

LAI16-104794

IC - RATED

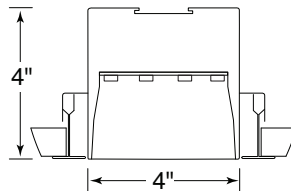
LED



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FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

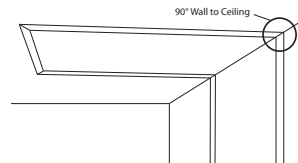
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

24'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

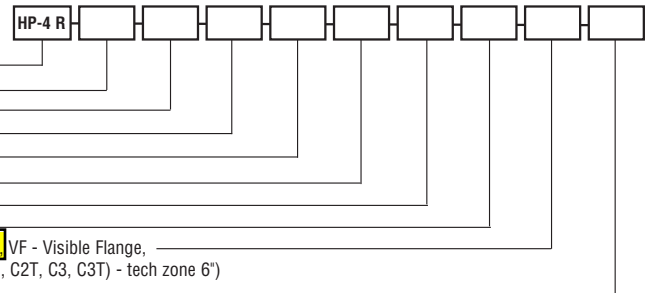
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-68"-H-3000K-F-277V-2C- C2T-
DIM ONE LEG OF FOUR ON SEP
CIRCUIT ONE 10FT LEG ON A
SEPERATE FEED/CIR

Type:**RA24**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

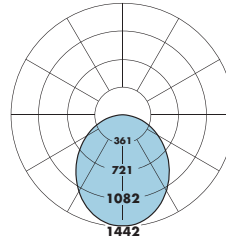
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

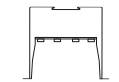
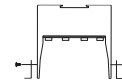
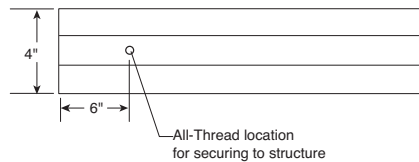
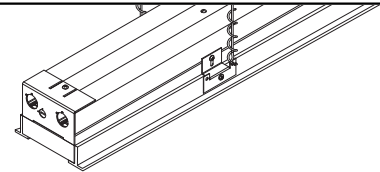
FN-HP-4R-68"-H-3000K-F-277V-2C- C2T-
DIM ONE LEG OF FOUR ON SEP
CIRCUIT ONE 10FT LEG ON A
SEPERATE FEED/CIR

Type:**RA24**

LAI16-104794



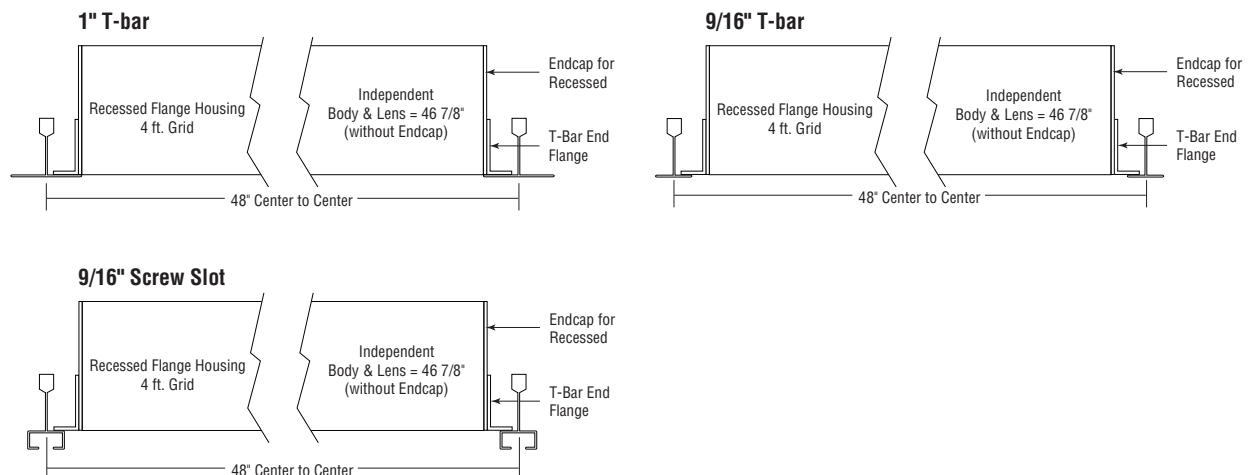
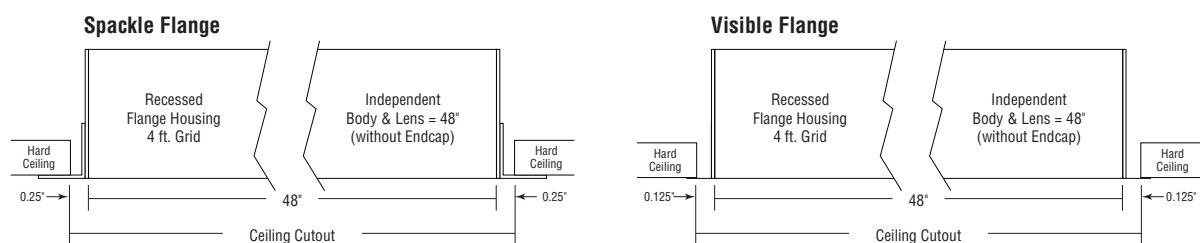
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****HOUSING****Housing With
Extruded Flange (V1)**Ceiling Options
C1, C2, C3, VF**Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached**Ceiling Options
C1T, C2T, C3F, SF, TZ6All-Thread location
for securing to structure**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example****Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732**Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.comDue to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-68"-H-3000K-F-277V-2C- C2T-
DIM ONE LEG OF FOUR ON SEP
CIRCUIT ONE 10FT LEG ON A
SEPERATE FEED/CIR

Type:**RA24**

LAI16-104794

IC - RATED

LED



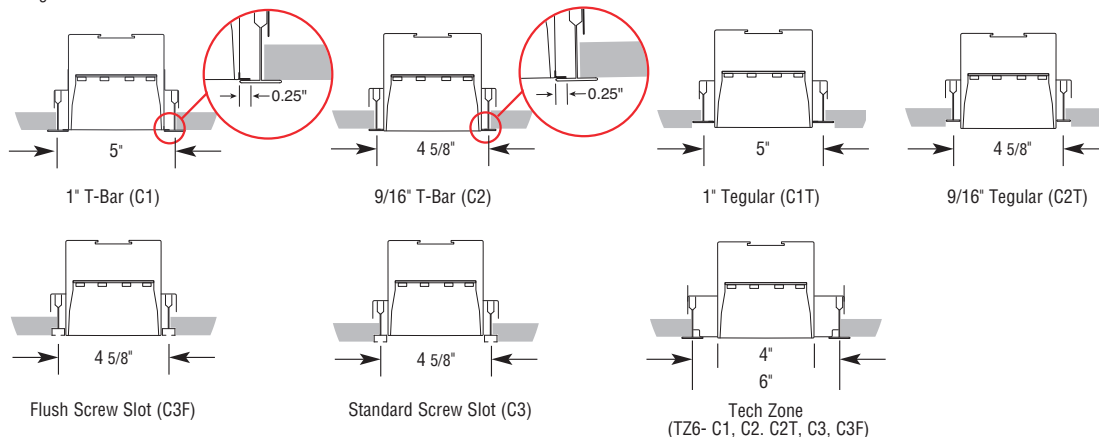
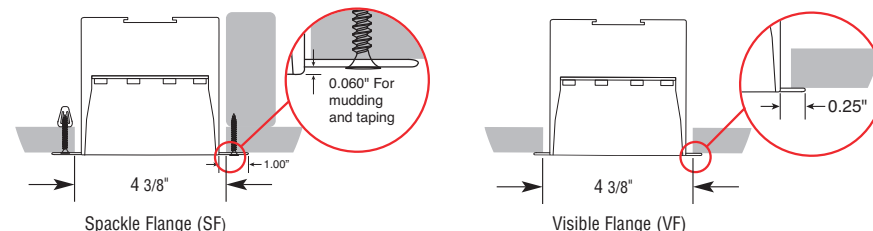
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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-68'-H-3000K-F-277V-2C- C2T-
DIM ONE LEG OF FOUR ON SEP CIRCUIT
ONE 10FT LEG ON A SEPERATE FEED/
CIR

Type:**RA-24X9**

LAI16-104794

IC - RATED

LED



BUY AMERICAN ACT OF 2009 COMPLIANT

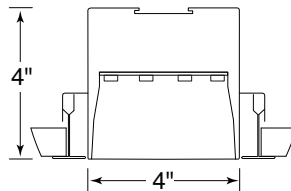
FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type

Comments

66' 8" LINEAR LENGTH
24FT X 9FT 4IN RECTANGLE
CONSISTING OF
(2) TYPE RA24C
(2) TYPE RA9-4C
AND (4) 90 DEGREE CORNERS

**DESCRIPTION**

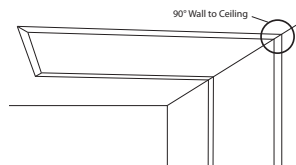
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting

10 working days

TAILORED LIGHTING

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

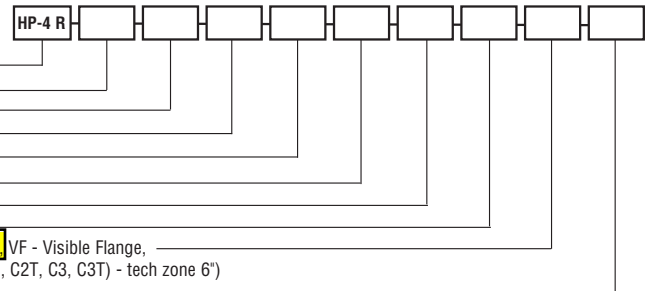
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-68'-H-3000K-F-277V-2C- C2T-
DIM ONE LEG OF FOUR ON SEP CIRCUIT
ONE 10FT LEG ON A SEPERATE FEED/
CIR

Type:**RA-24X9**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

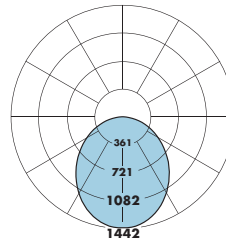
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-68"-H-3000K-F-277V-2C- C2T-
DIM ONE LEG OF FOUR ON SEP CIRCUIT
ONE 10FT LEG ON A SEPERATE FEED/
CIR

Type:**RA-24X9**

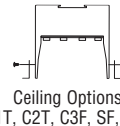
LAI16-104794



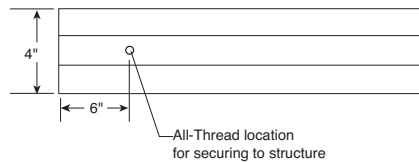
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****HOUSING**

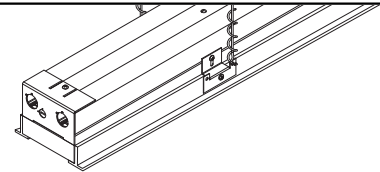
Housing With
Extruded Flange (V1)



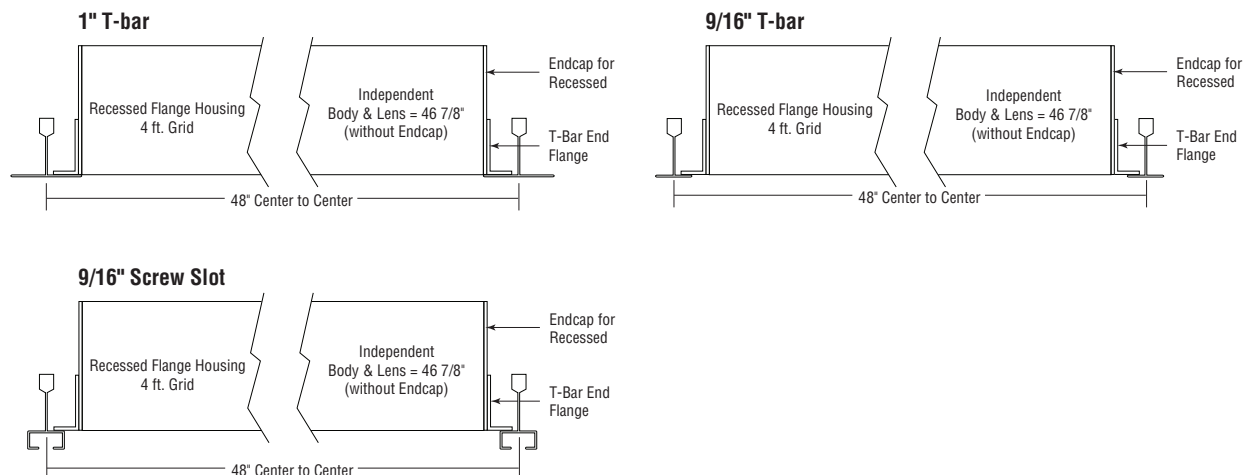
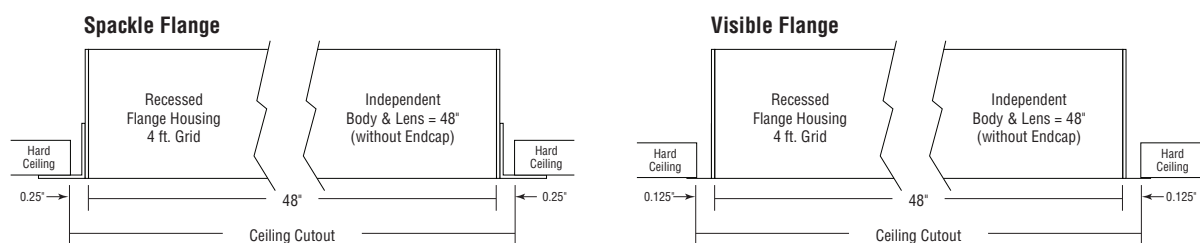
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-68"-H-3000K-F-277V-2C- C2T-
DIM ONE LEG OF FOUR ON SEP CIRCUIT
ONE 10FT LEG ON A SEPERATE FEED/
CIR

Type:**RA-24X9**

LAI16-104794

IC - RATED

LED



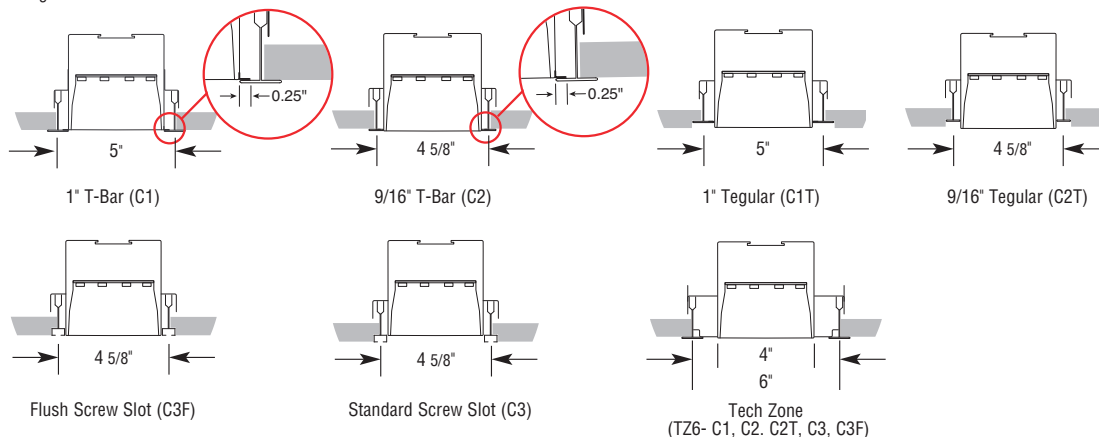
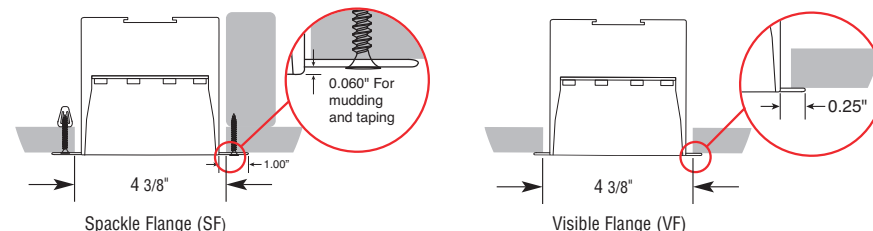
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-13'-H-3000K-F-277V-SC-SF-
DIM

Notes: DRYWALL CEILING

Type:

RB-6X7

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed



Date

Project

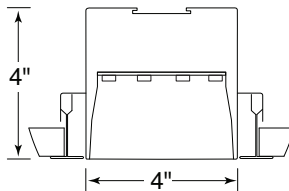
Type

Comments

13' LINEAR LENGTH
6FT X 7FT "L"
CONSISTING OF
(1) TYPE RB6C
(1) TYPE RB7C
AND (1) 90 DEGREE CORNER

**DESCRIPTION**

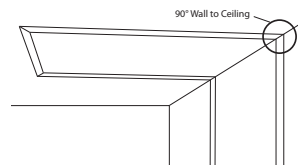
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting 10 working days

TAILORED LIGHTING

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32''$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32''$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

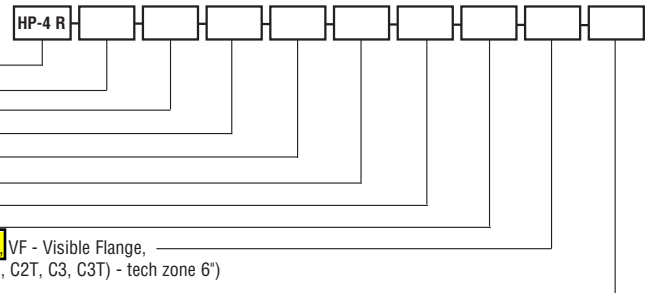
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-13'-H-3000K-F-277V-SC-SF-
DIM

Notes: DRYWALL CEILING

Type:

RB-6X7

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

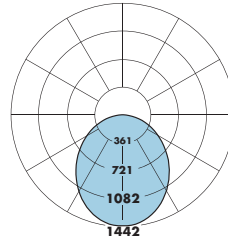
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

*Total Light Output =
2898 lm x 0.789 = 2287 lm*

*Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft*

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-62'8"-H-3000K-F-277V- SC-C3F-
DIM 24FT 8IN X 6FT 8IN RECTANGLE C/
O: 2 TYPE RA24-8C 2-TYPE RA6-8C 4-90
DEGREE CORNERS

Type:**RA-24X6**

LAI16-104794

IC - RATED

LED



BUY AMERICAN ACT OF 2009 COMPLIANT

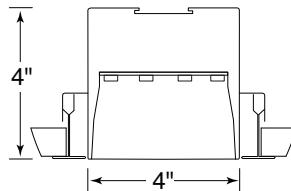
FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type

Comments

61' 4" LINEAR LENGTH
24FT X 6FT 8IN RECTANGLE
CONSISTING OF
(2) TYPE RA24C
(2) TYPE RA6-8C
AND (4) 90 DEGREE CORNERS

**DESCRIPTION**

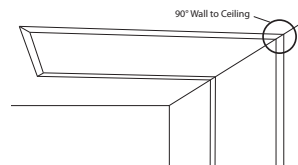
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting 10 working days

TAILORED LIGHTING

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

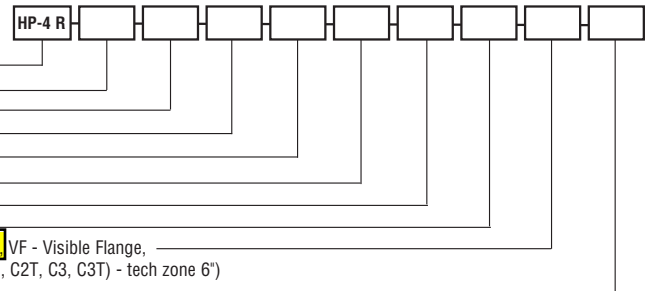
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-62'8"-H-3000K-F-277V- SC-C3F-
DIM 24FT 8IN X 6FT 8IN RECTANGLE C/
O: 2 TYPE RA24-8C 2-TYPE RA6-8C 4-90
DEGREE CORNERS

Type:**RA-24X6**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

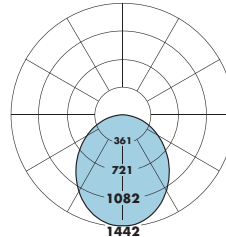
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



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75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
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* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
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4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

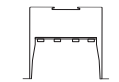
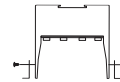
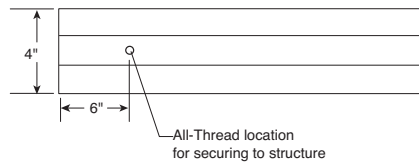
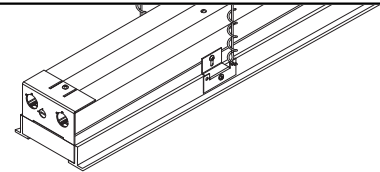
FN-HP-4R-62'8"-H-3000K-F-277V- SC-C3F-
DIM 24FT 8IN X 6FT 8IN RECTANGLE C/
O: 2 TYPE RA24-8C 2-TYPE RA6-8C 4-90
DEGREE CORNERS

Type:**RA-24X6**

LAI16-104794



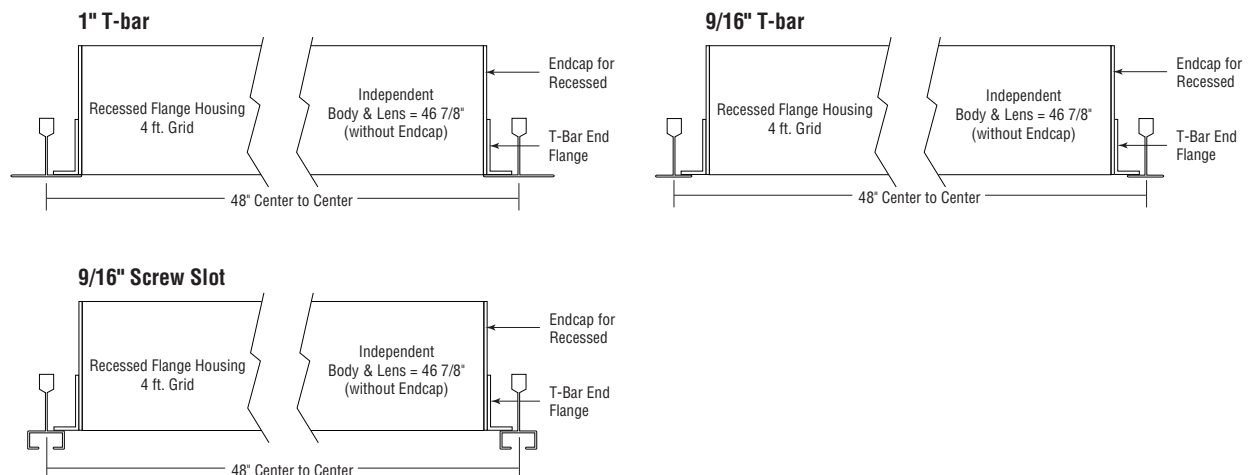
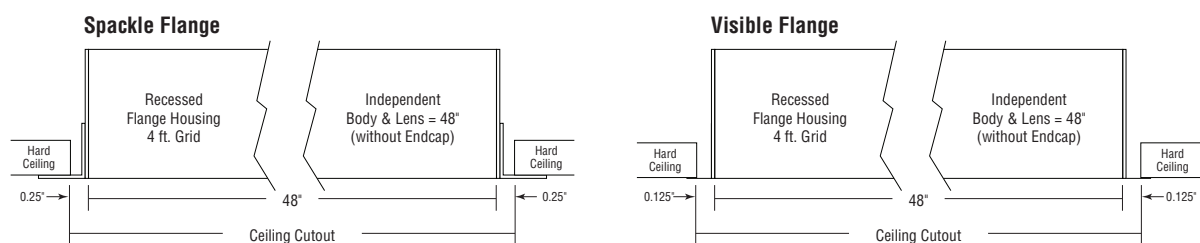
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****HOUSING****Housing With
Extruded Flange (V1)**Ceiling Options
C1, C2, C3, VF**Housing Without
Extruded Flange (V2)**
Ceiling Hardware AttachedCeiling Options
C1T, C2T, C3F, SF, TZ6All-Thread location
for securing to structure**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example****Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732**Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.comDue to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-62'8"-H-3000K-F-277V- SC-C3F-
DIM 24FT 8IN X 6FT 8IN RECTANGLE C/
O: 2 TYPE RA24-8C 2-TYPE RA6-8C 4-90
DEGREE CORNERS

Type:**RA-24X6**

LAI16-104794

IC - RATED

LED



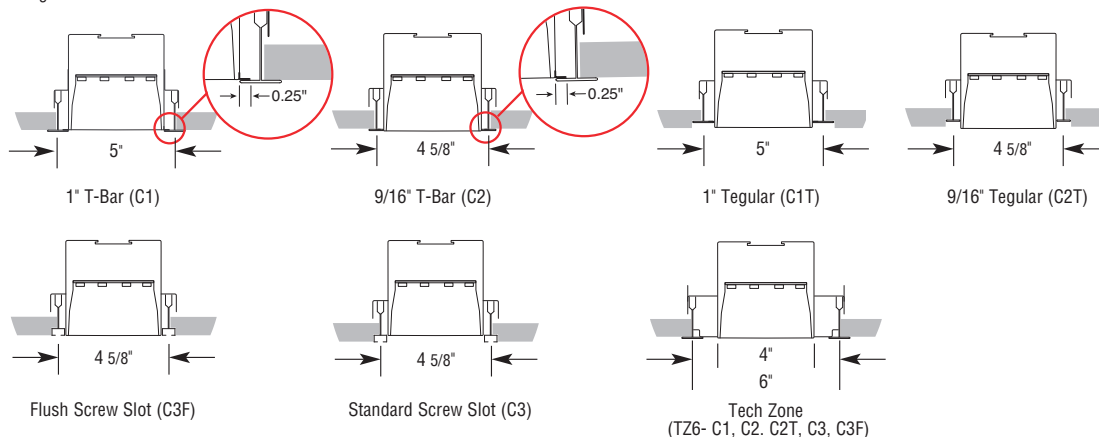
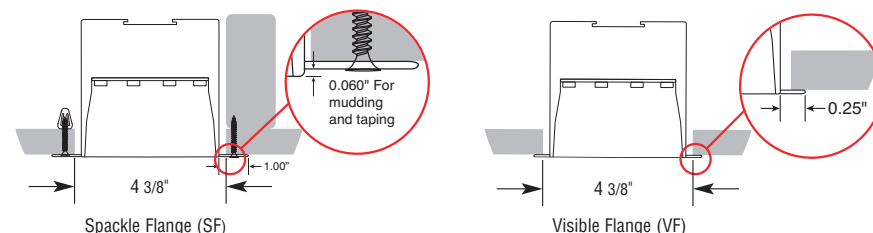
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-15'8"-H-3000K-F-277V- SC-SF-
DIM 9FT 4IN X 6FT 4IN L C/O: 1 TYPE
RB9-4C 1 TYPE RB6-4C 1 90 DREGREE
CORNER DRYWALL CEILING EACH LEG
ON SEPERATE FEED

Type:**RB-9-4X6**

LAI16-104794



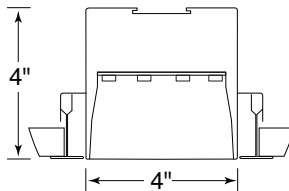
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type

Comments

**DESCRIPTION**

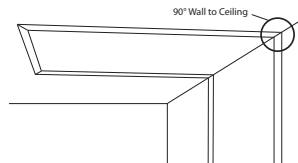
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

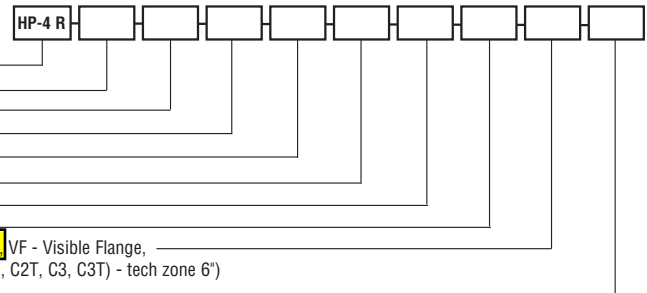
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-15'8"-H-3000K-F-277V- SC-SF-
DIM 9FT 4IN X 6FT 4IN L C/O: 1 TYPE
RB9-4C 1 TYPE RB6-4C 1 90 DREGREE
CORNER DRYWALL CEILING EACH LEG
ON SEPERATE FEED

Type:**RB-9-4X6**

LAI16-104794



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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

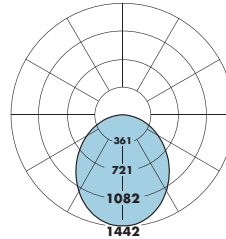
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-15'8"-H-3000K-F-277V- SC-SF-
DIM 9FT 4IN X 6FT 4IN L C/O: 1 TYPE
RB9-4C 1 TYPE RB6-4C 1 90 DREGREE
CORNER DRYWALL CEILING EACH LEG
ON SEPERATE FEED

Type:**RB-9-4X6**

LAI16-104794



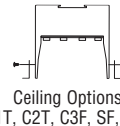
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FINELITE

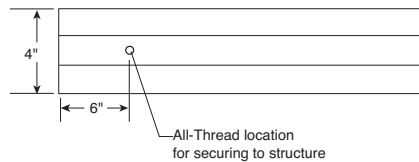
High Performance 4" Aperture (HP-4) - Recessed

HOUSING

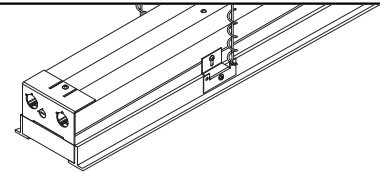
Housing With
Extruded Flange (V1)



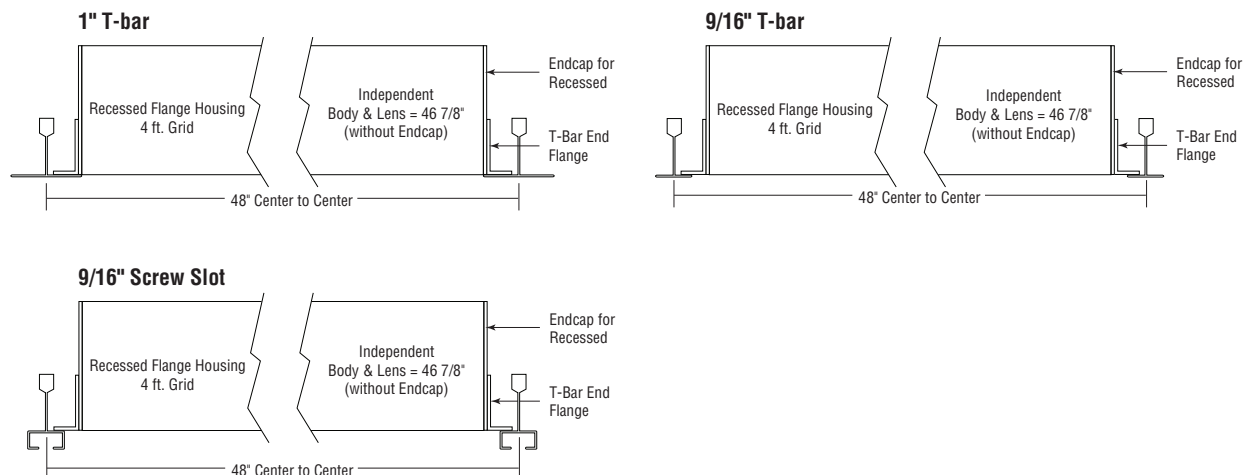
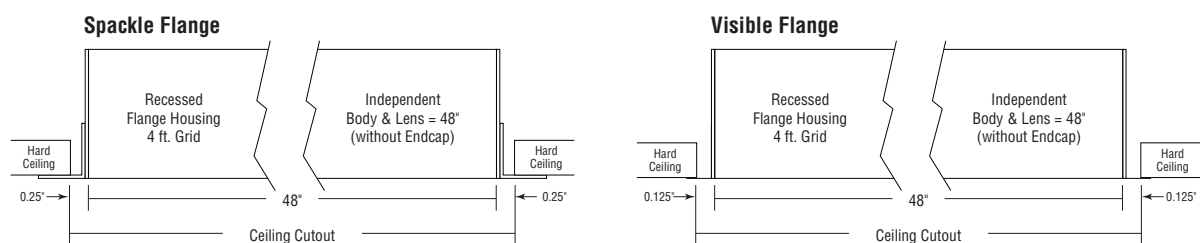
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-15'8"-H-3000K-F-277V- SC-SF-
DIM 9FT 4IN X 6FT 4IN L C/O: 1 TYPE
RB9-4C 1 TYPE RB6-4C 1 90 DREGREE
CORNER DRYWALL CEILING EACH LEG
ON SEPERATE FEED

Type:**RB-9-4X6**

LAI16-104794

IC - RATED

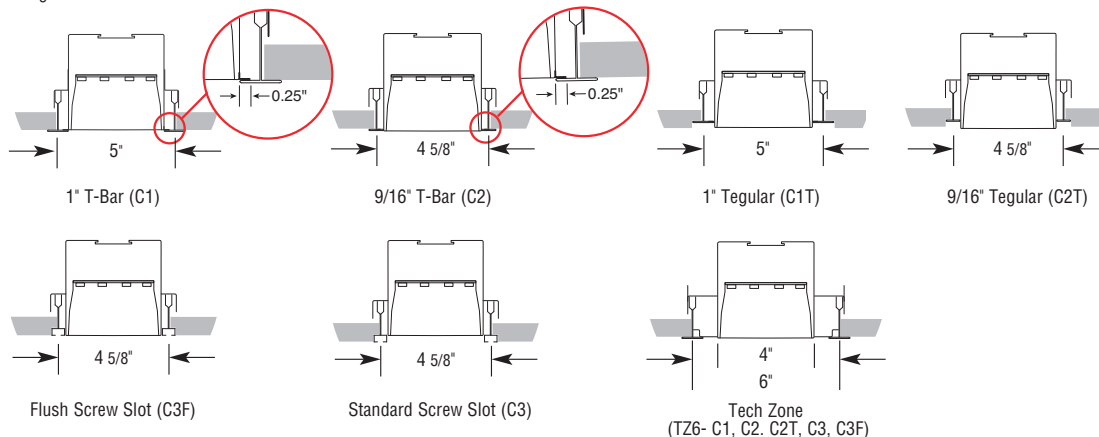
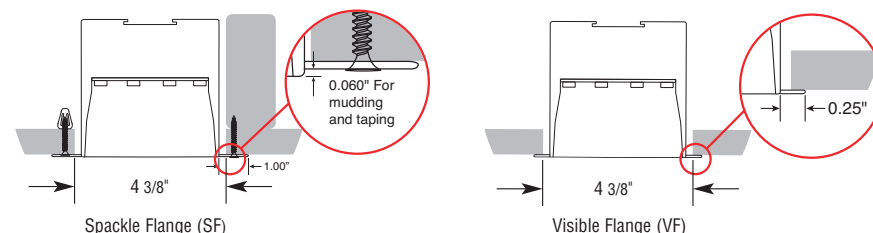
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-18'4"-H-3000K-F-277V-MC-
C3F-DIM 12FT 4IN X 6FT L C/O: 1-TYPE
RA12-4C 1-TYPE RA6C 1-90 DEGREE
CORNER 6FT LEG ON SEPERATE CKT

Type:**RA-12X6**

LAI16-104794



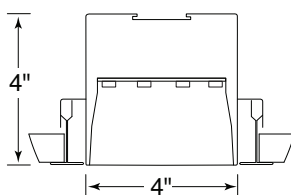
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type

Comments

**DESCRIPTION**

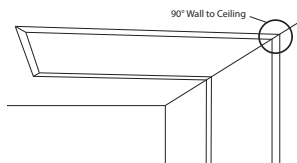
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting
10 working days**TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

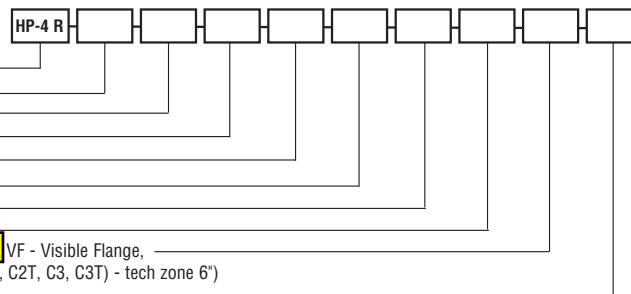
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-18'4"-H-3000K-F-277V-MC-
C3F-DIM 12FT 4IN X 6FT L C/O: 1-TYPE
RA12-4C 1-TYPE RA6C 1-90 DEGREE
CORNER 6FT LEG ON SEPERATE CKT

Type:**RA-12X6**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

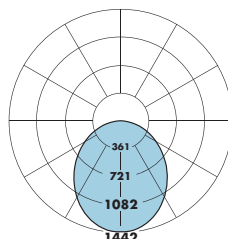
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

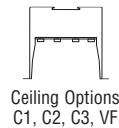
FN-HP-4R-18'4"-H-3000K-F-277V-MC-
C3F-DIM 12FT 4IN X 6FT L C/O: 1-TYPE
RA12-4C 1-TYPE RA6C 1-90 DEGREE
CORNER 6FT LEG ON SEPERATE CKT

Type:**RA-12X6**

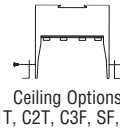
LAI16-104794



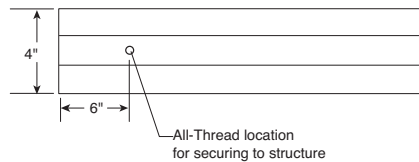
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****HOUSING**

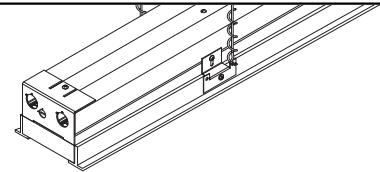
**Housing With
Extruded Flange (V1)**



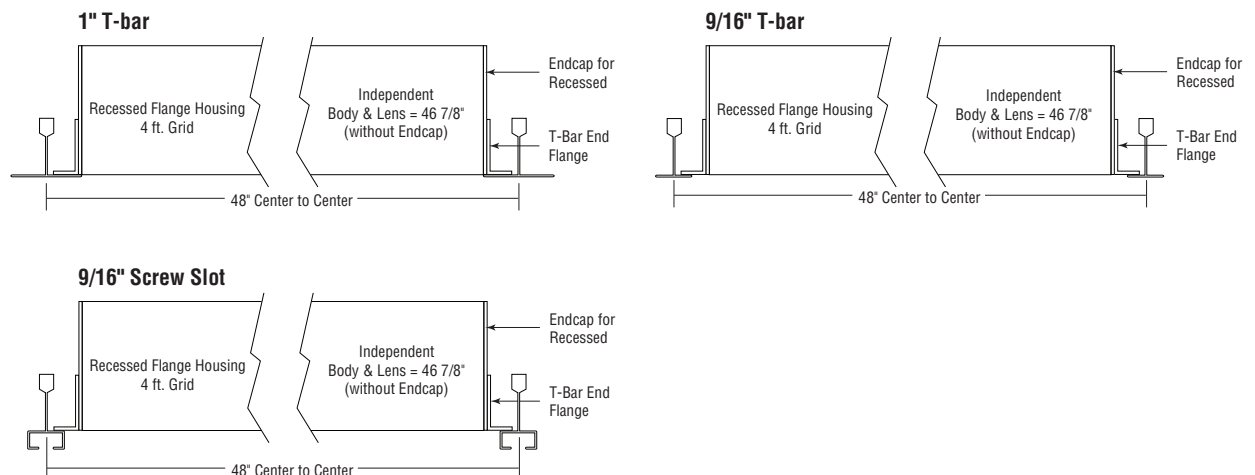
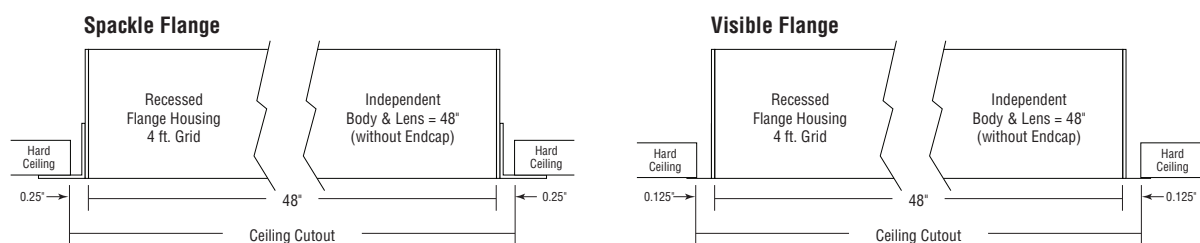
**Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached**

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FN-HP-4R-18'4"-H-3000K-F-277V-MC-
C3F-DIM 12FT 4IN X 6FT L C/O: 1-TYPE
RA12-4C 1-TYPE RA6C 1-90 DEGREE
CORNER 6FT LEG ON SEPERATE CKT

Type:**RA-12X6**

LAI16-104794

IC - RATED

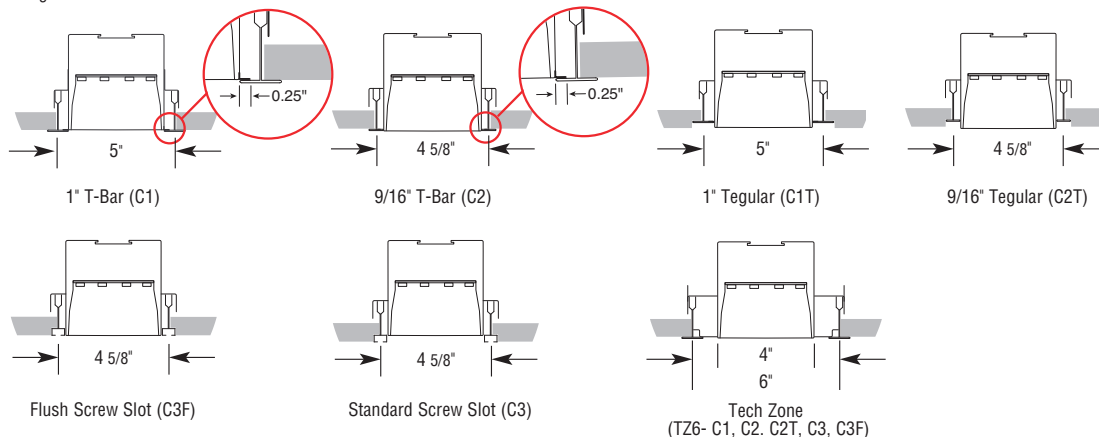
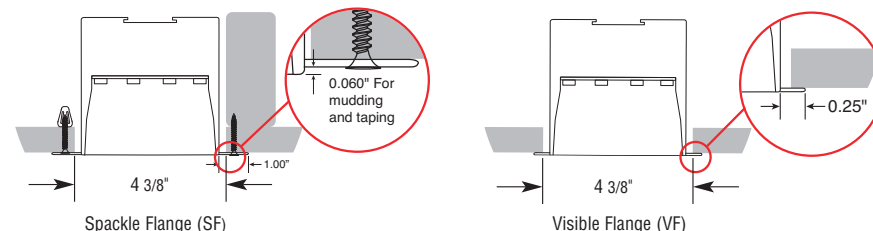
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-4'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB4**

LAI16-104794

IC - RATED

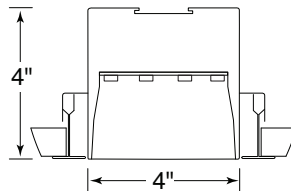
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

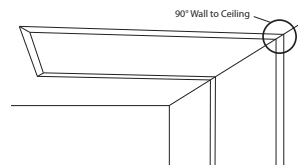
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

4'

Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)

*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-4'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB4**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

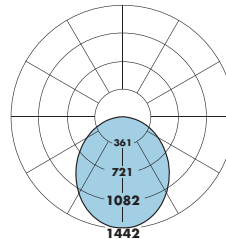
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-4'-H-3000K-F-277V-SC-SF-
DIM

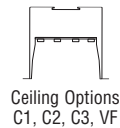
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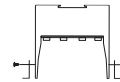
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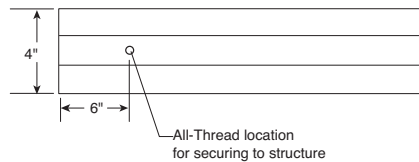
FINELITE**High Performance 4" Aperture (HP-4) - Recessed****HOUSING**

Housing With
Extruded Flange (V1)

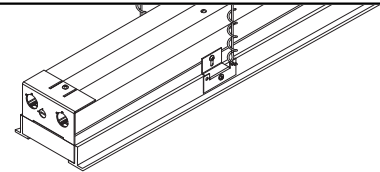


Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

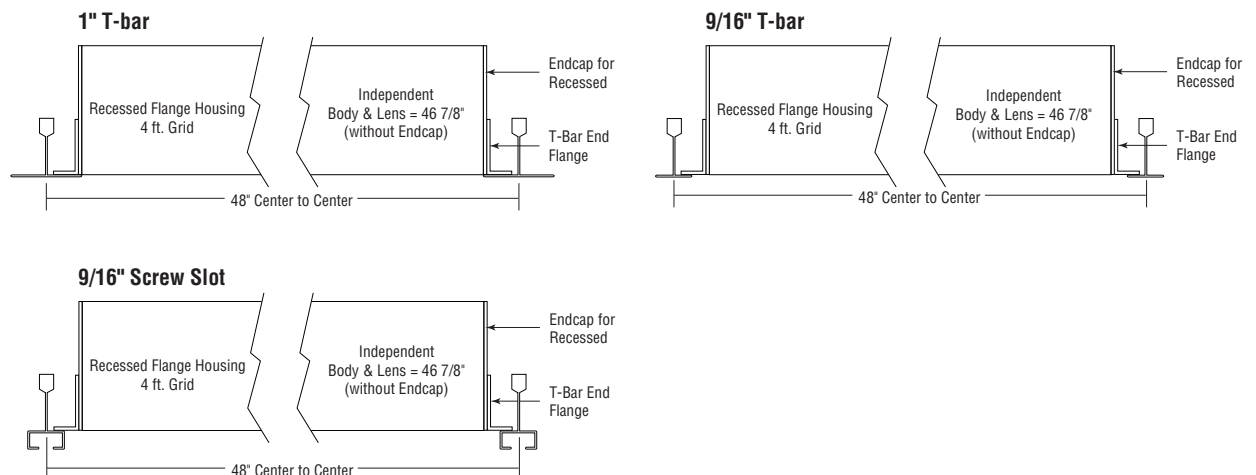
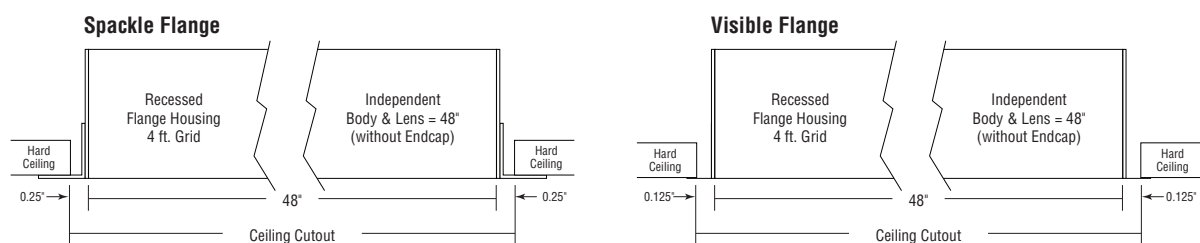
Ceiling Options
C1T, C2T, C3F, SF, TZ6

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-4'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB4**

LAI16-104794

IC - RATED

LED



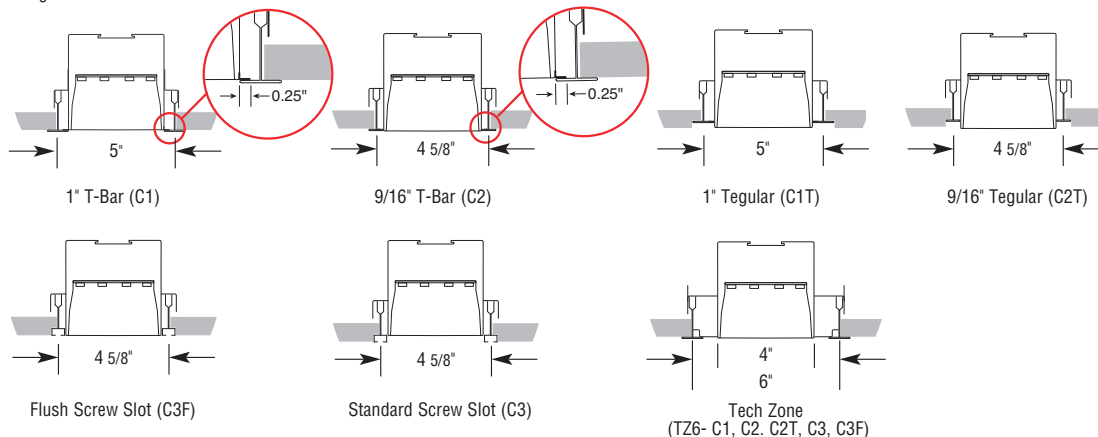
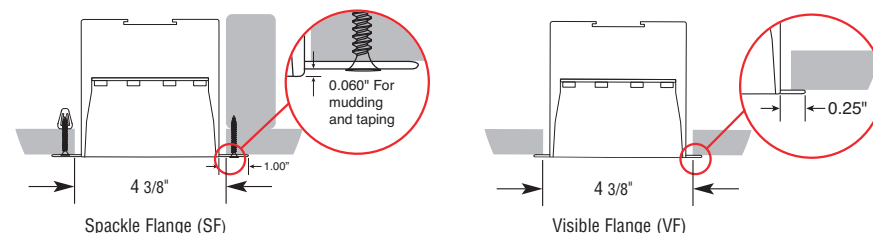
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-6'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB6**

LAI16-104794

IC - RATED

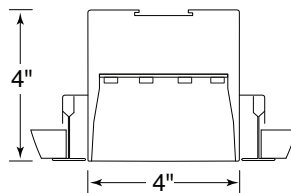
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

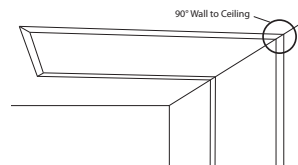
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

6'

Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)

*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-6'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB6**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

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High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

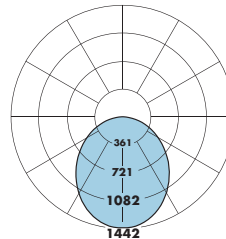
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-6'-H-3000K-F-277V-SC-SF-
DIM

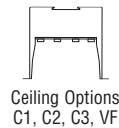
Notes:

Type:**RB6**

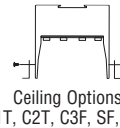
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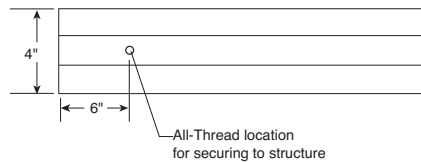
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****HOUSING**

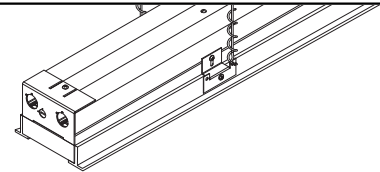
Housing With
Extruded Flange (V1)



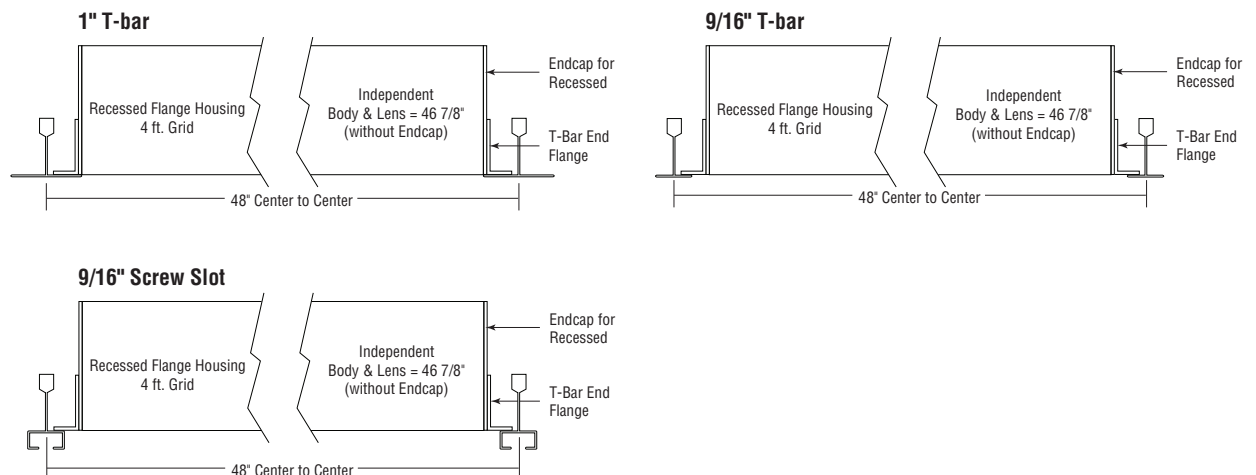
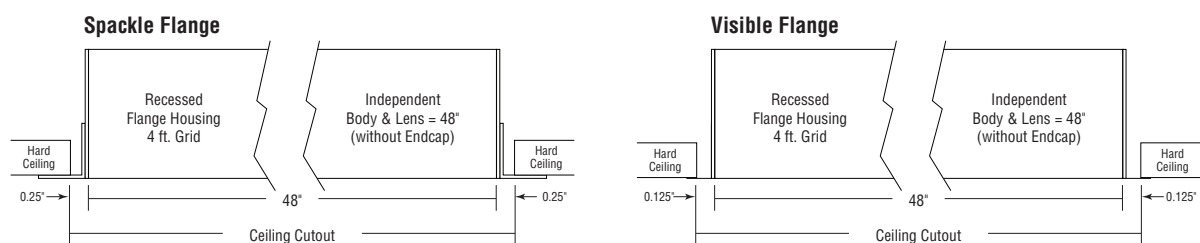
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-6'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB6**

LAI16-104794

IC - RATED

LED



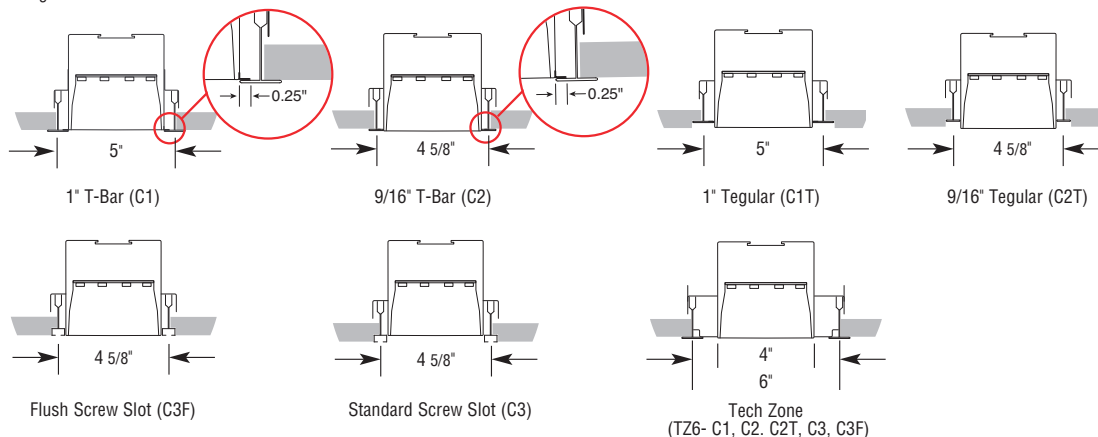
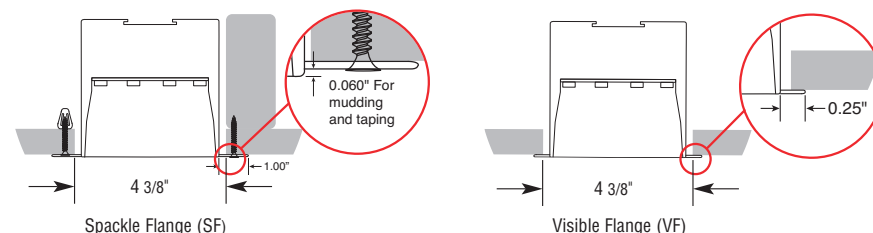
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB8**

LAI16-104794

IC - RATED

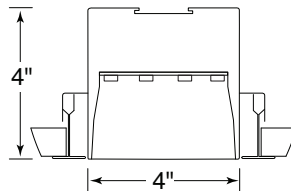
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

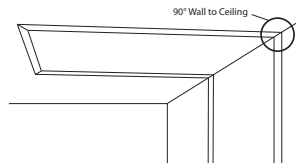
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

8'

Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

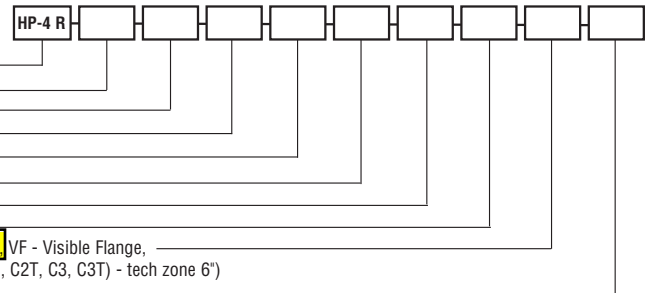
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB8**

LAI16-104794



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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

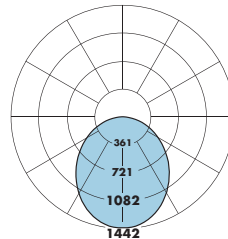
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB8**

LAI16-104794



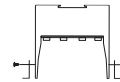
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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

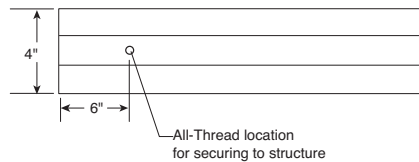
HOUSING

Housing With
Extruded Flange (V1)

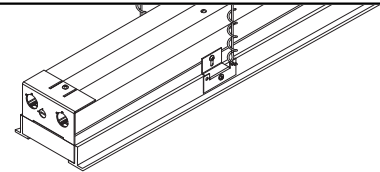


Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

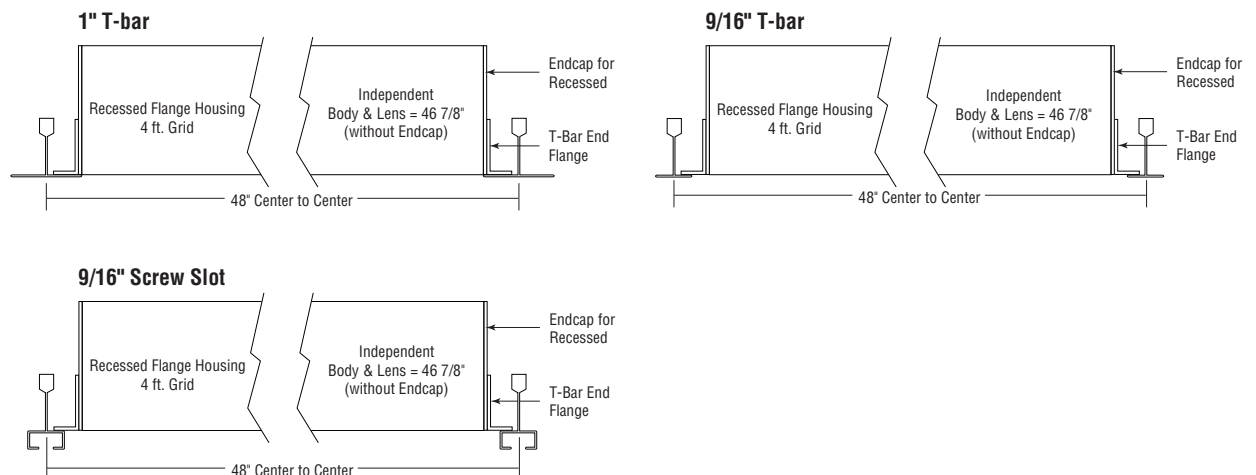
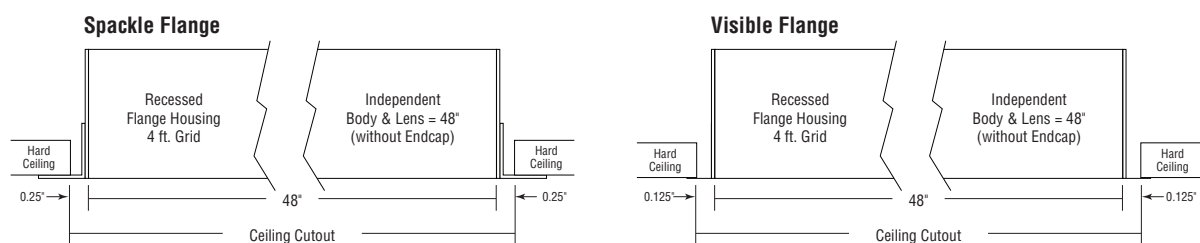
Ceiling Options
C1T, C2T, C3F, SF, TZ6

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

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**Job Name:**

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(SAINT LOUIS)

Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB8**

LAI16-104794

IC - RATED

LED



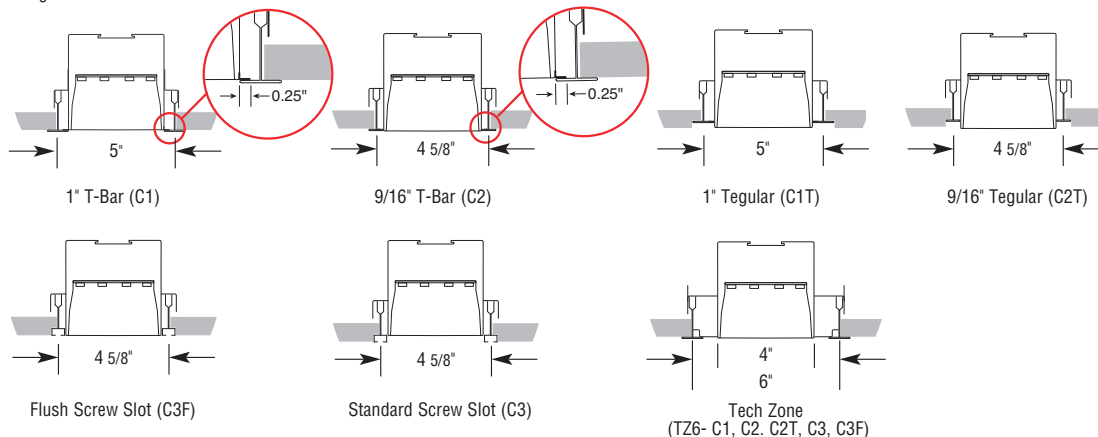
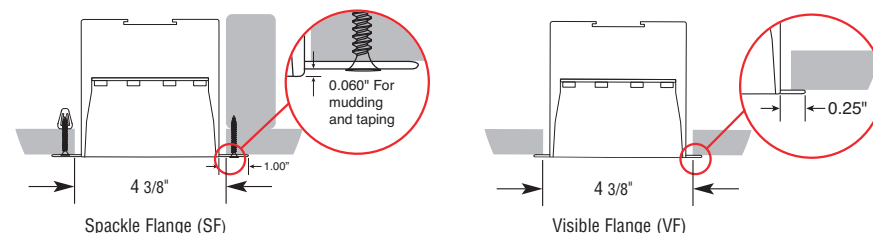
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-10'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB10**

LAI16-104794

IC - RATED

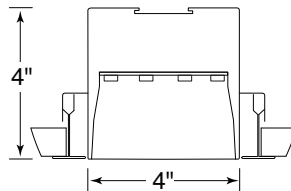
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

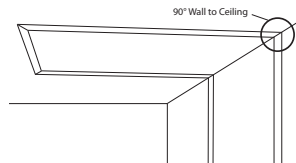
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

10'Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

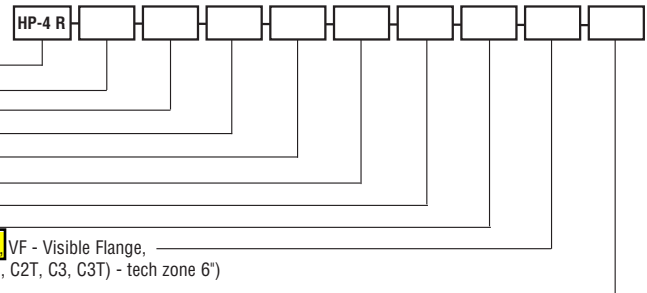
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-10'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB10**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

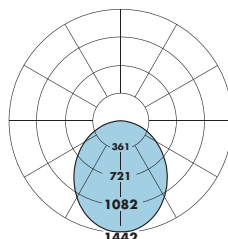
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-10'-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB10**

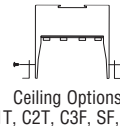
LAI16-104794



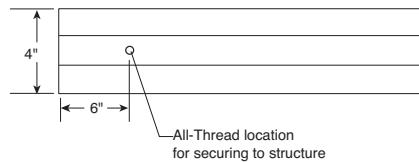
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FINELITE**High Performance 4" Aperture (HP-4) - Recessed****HOUSING**

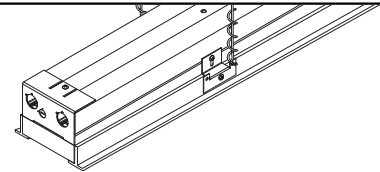
Housing With
Extruded Flange (V1)



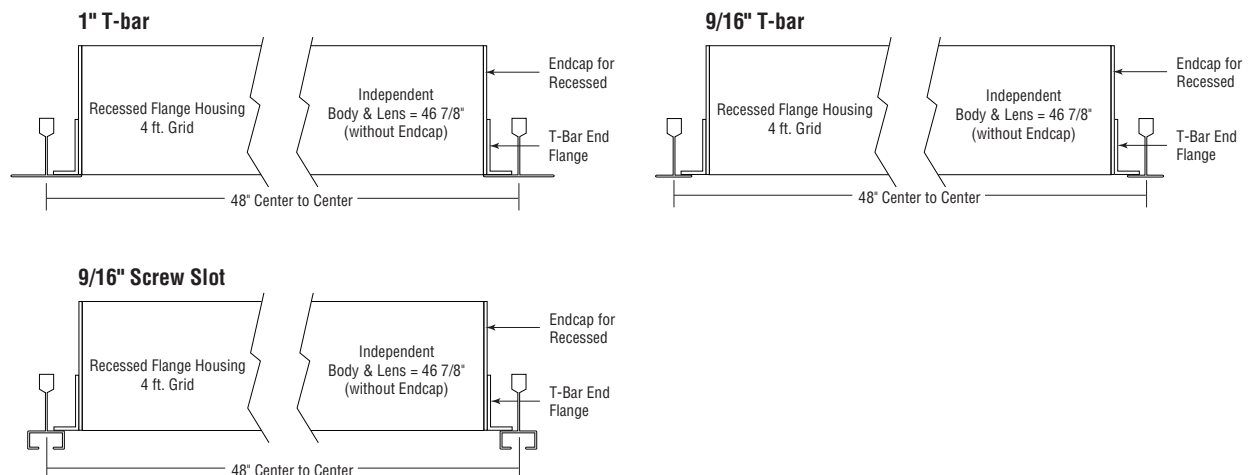
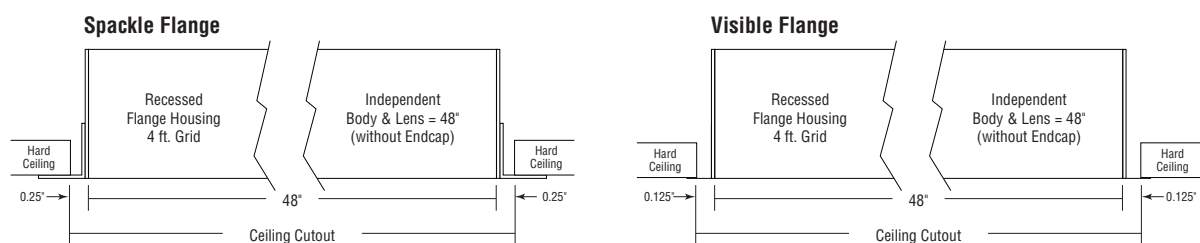
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-10"-H-3000K-F-277V-SC-SF-
DIM

Notes:

Type:**RB10**

LAI16-104794

IC - RATED

LED



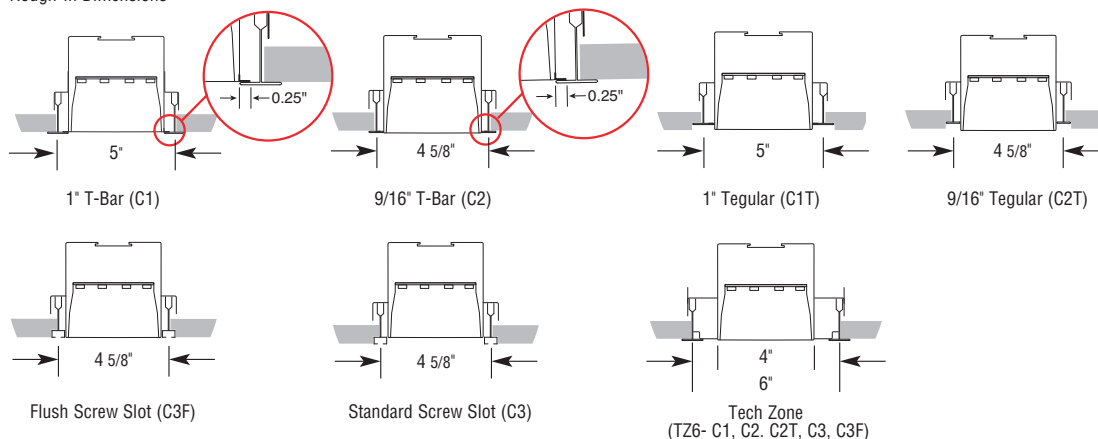
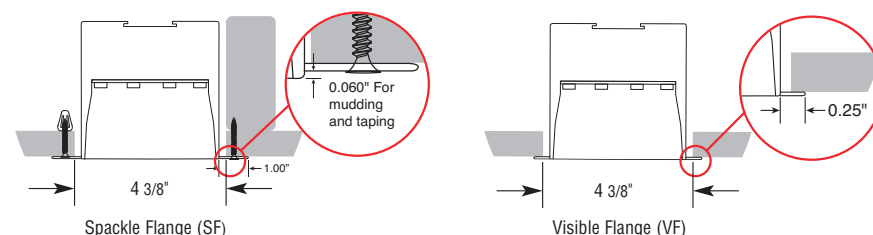
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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-17'-6"-H-3000K-F-277V-SC-
SF-DIM

Notes:

Type:**RB17**

LAI16-104794

IC - RATED

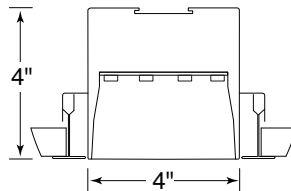
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

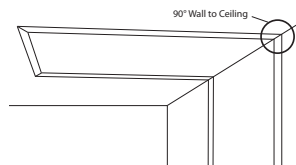
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

17' 6"Finelite **Series HP-4 R**Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (S - Standard, B - Boosted Standard, H - High, V - Very High)

LED CRI (8 - 80 CRI min (standard), 9 - 90 CRI min)

LED Color Temperature (30 - 3000K, 35 - 3500K, 40 - 4000K)

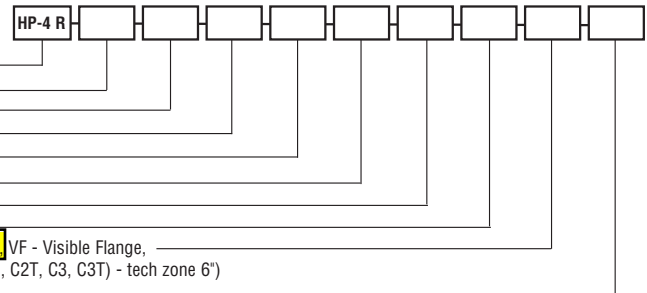
Downlight Diffuser Option (F - Flush (standard))

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-17'-6"-H-3000K-F-277V-SC-
SF-DIM

Notes:

Type:**RB17**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

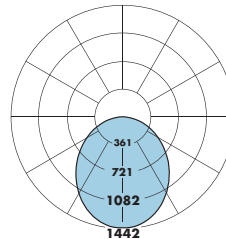
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-17'-6"-H-3000K-F-277V-SC-
SF-DIM

Notes:

Type:**RB17**

LAI16-104794



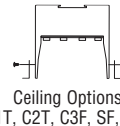
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

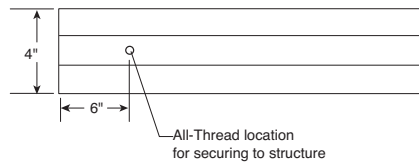
High Performance 4" Aperture (HP-4) - Recessed

HOUSING

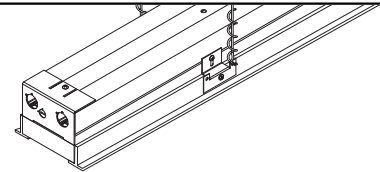
Housing With
Extruded Flange (V1)



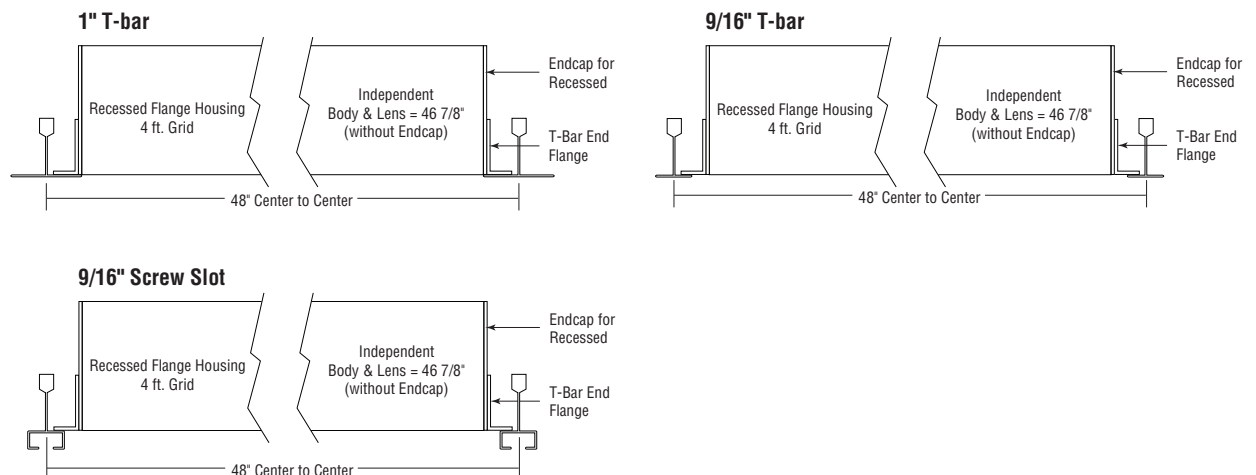
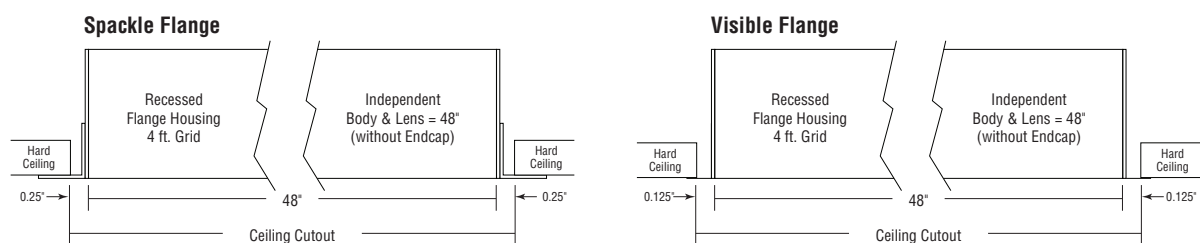
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-17'-6"-H-3000K-F-277V-SC-
SF-DIM

Notes:

Type:**RB17**

LAI16-104794

IC - RATED

LED



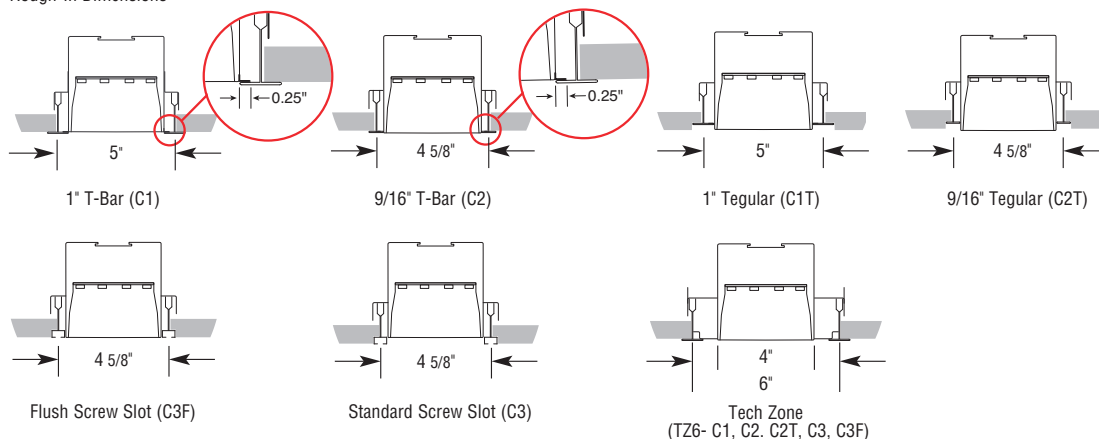
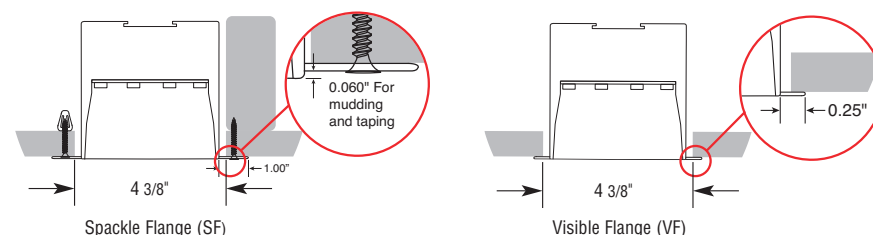
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-4'7"-
277-D-1-DTL-W

Notes:

Type:**RC4-7**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4¾" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

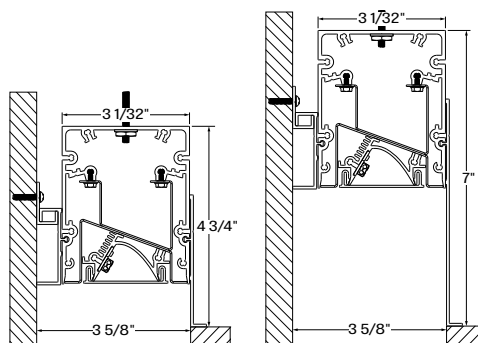
ORDER GUIDE**IC RATED**

LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit +EB - emergency battery pack (for min 4' fixture) +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

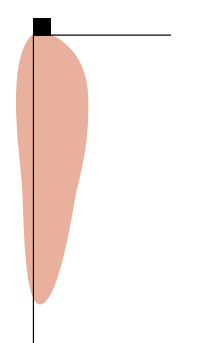
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-4'7"-
277-D-1-DTL-W

Notes:

Type:**RC4-7**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

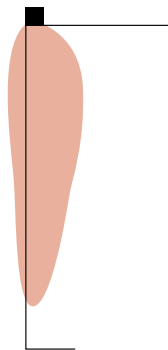
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

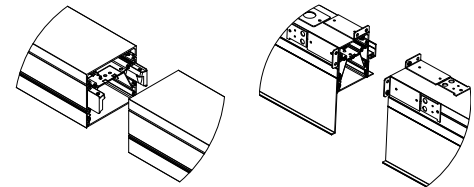
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-4'7"-
277-D-1-DTL-W

Notes:

Type:**RC4-7**

LAI16-104794

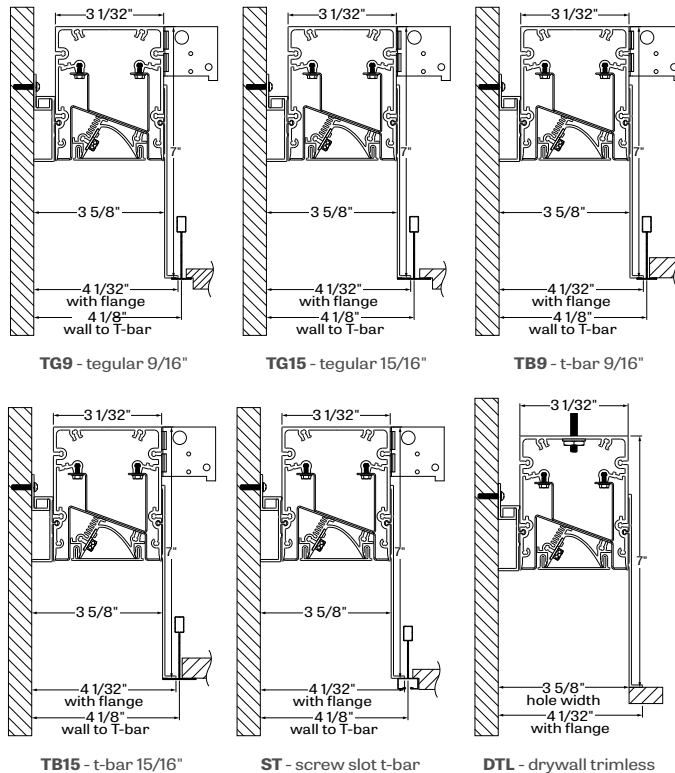
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-4'7"-
277-D-1-DTL-W

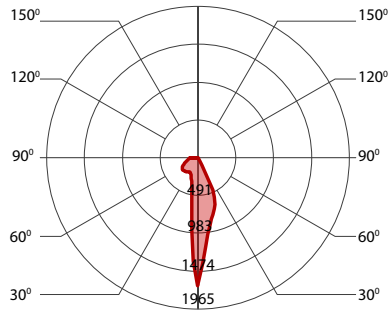
Notes:

Type:**RC4-7**

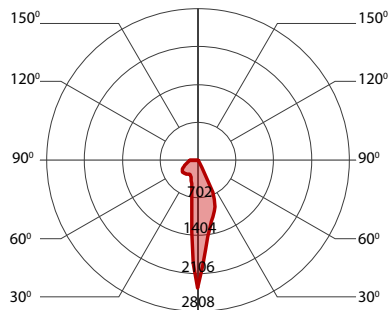
LAI16-104794

VIA SKIM 3 LED

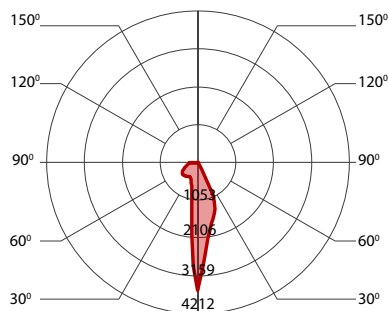
RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-5'-277-
D-1-DTL-W

Notes:

Type:**RC5**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

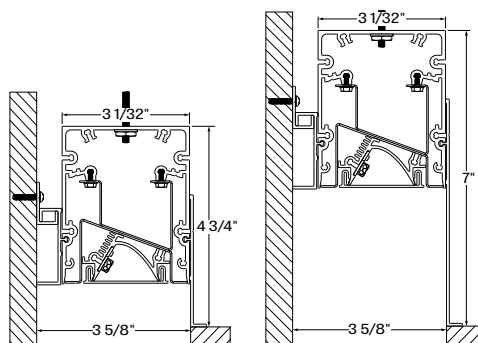
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

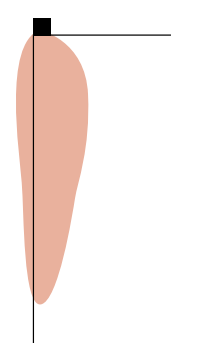
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-5'-277-
D-1-DTL-W

Notes:

Type:**RC5**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
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OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

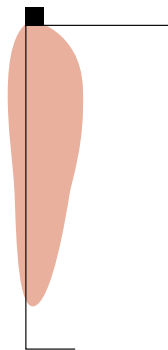
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

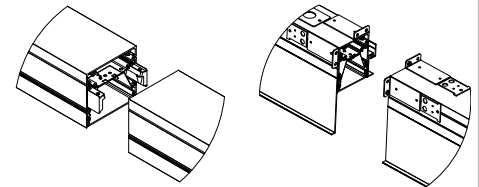
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency >84%, PF >0.9, THD <20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-5'-277-
D-1-DTL-W

Notes:

Type:**RC5**

LAI16-104794

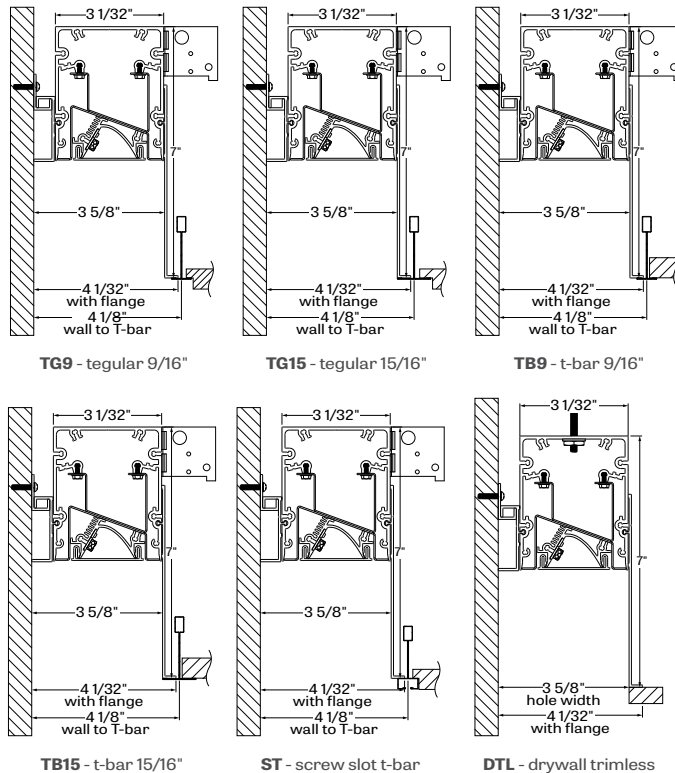
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-5'-277-
D-1-DTL-W

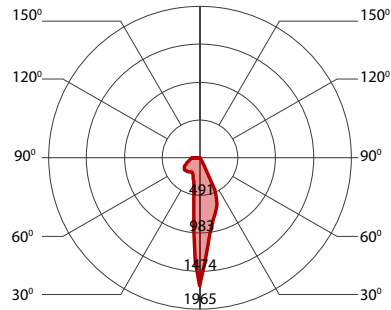
Notes:

Type:**RC5**

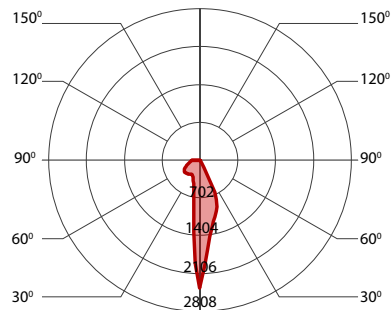
LAI16-104794

VIA SKIM 3 LED

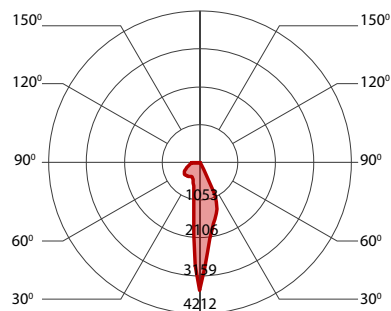
RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-5'6"-
277-D-1-DTL-W

Notes:

Type:**RC5-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

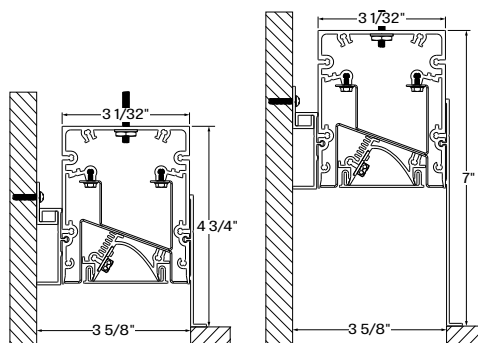
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

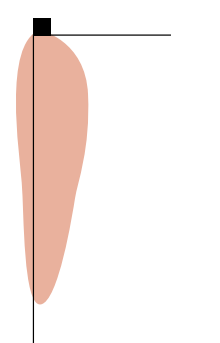
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-5'6"-
277-D-1-DTL-W

Notes:

Type:**RC5-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

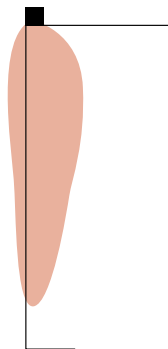
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

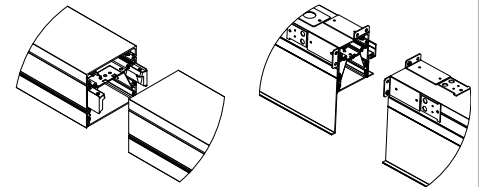
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-5'6"-
277-D-1-DTL-W

Notes:

Type:**RC5-6**

LAI16-104794

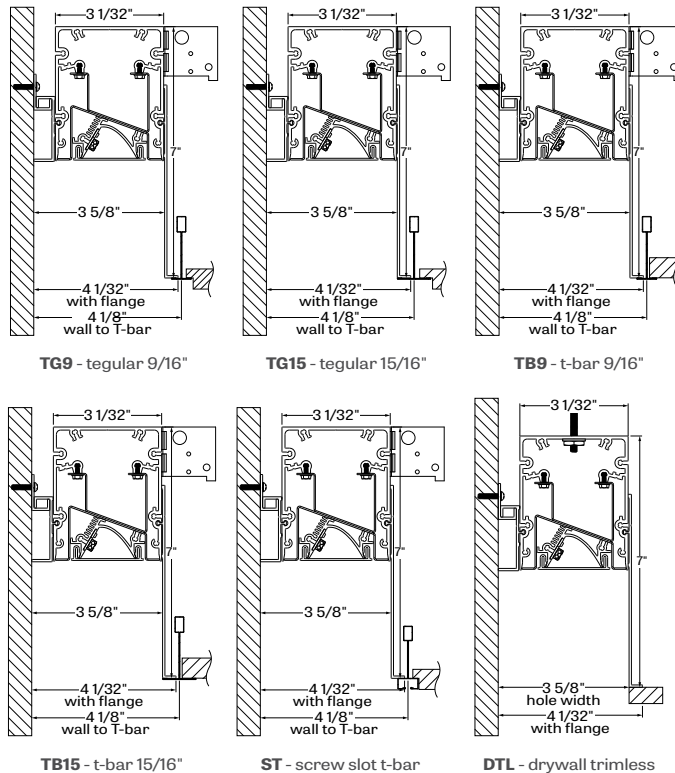
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-6'-277-
D-1-DTL-W

Notes:

Type:**RC6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

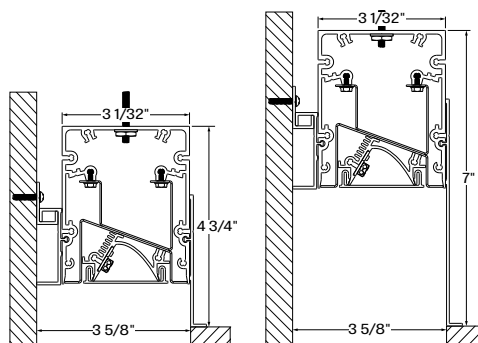
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

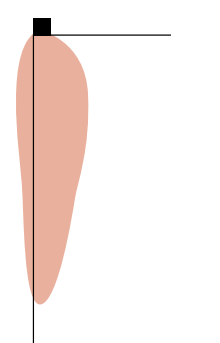
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-6'-277-
D-1-DTL-W

Notes:

Type:**RC6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

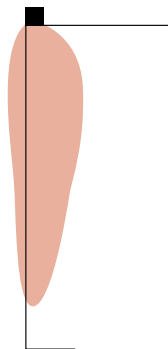
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

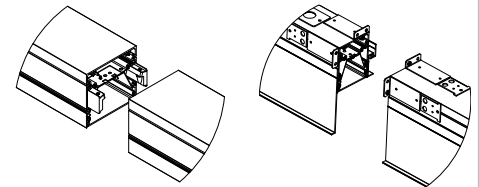
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-6'-277-
D-1-DTL-W

Notes:

Type:**RC6**

LAI16-104794

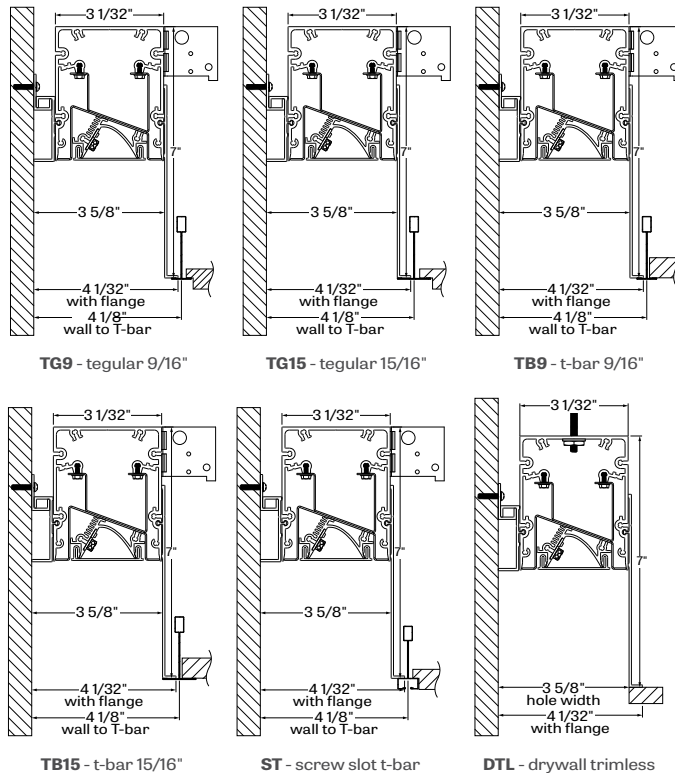
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-6'-277-
D-1-DTL-W

Notes:

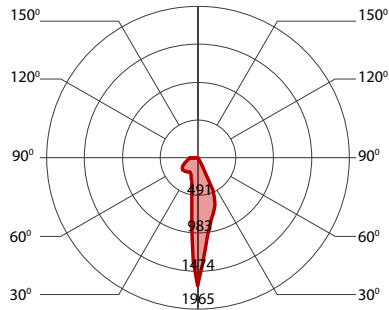
Type:**RC6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-7'-277-
D-1-DTL-W

Notes:

Type:**RC7**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

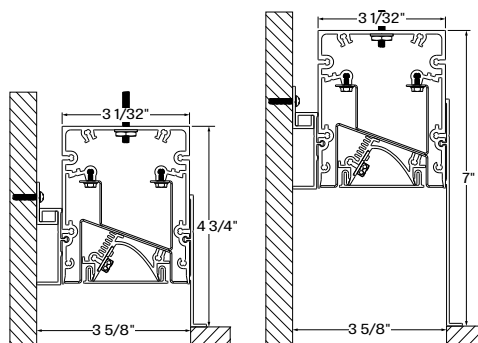
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

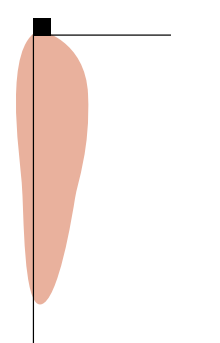
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-7'-277-
D-1-DTL-W

Notes:

Type:**RC7**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

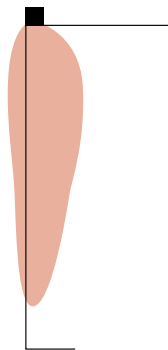
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

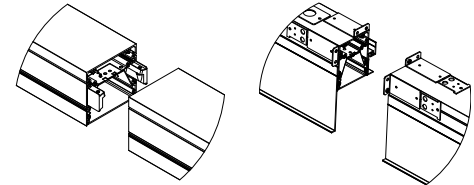
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-7'-277-
D-1-DTL-W

Notes:

Type:**RC7**

LAI16-104794

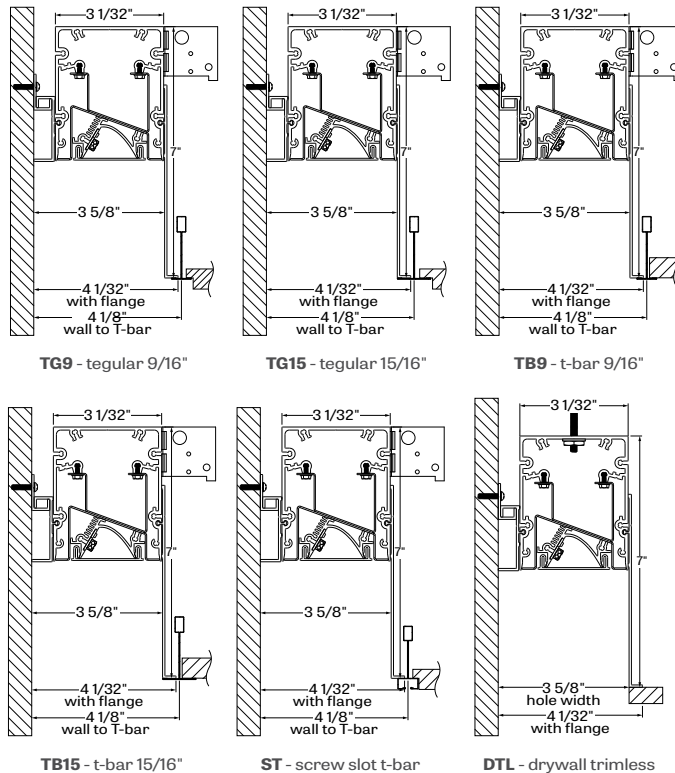
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-8'-277-
D-1-DTL-W

Notes:

Type:**RC8**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

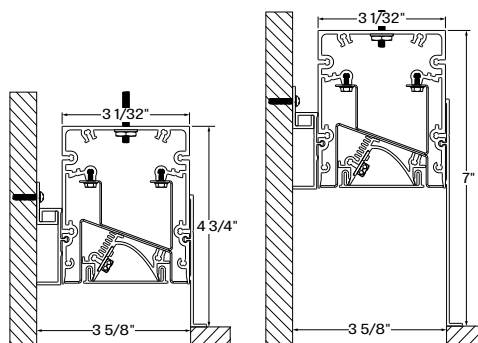
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

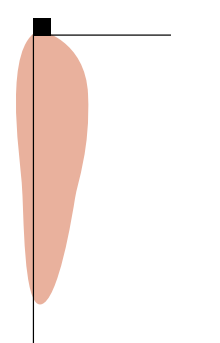
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-8'-277-
D-1-DTL-W

Notes:

Type:**RC8**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

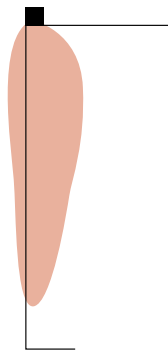
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

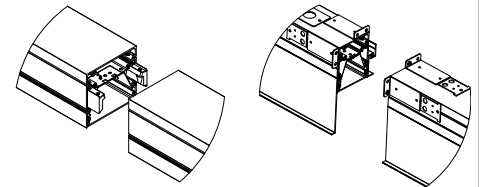
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
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11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

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Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency >84%, PF >0.9, THD <20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-8'-277-
D-1-DTL-W

Notes:

Type:**RC8**

LAI16-104794

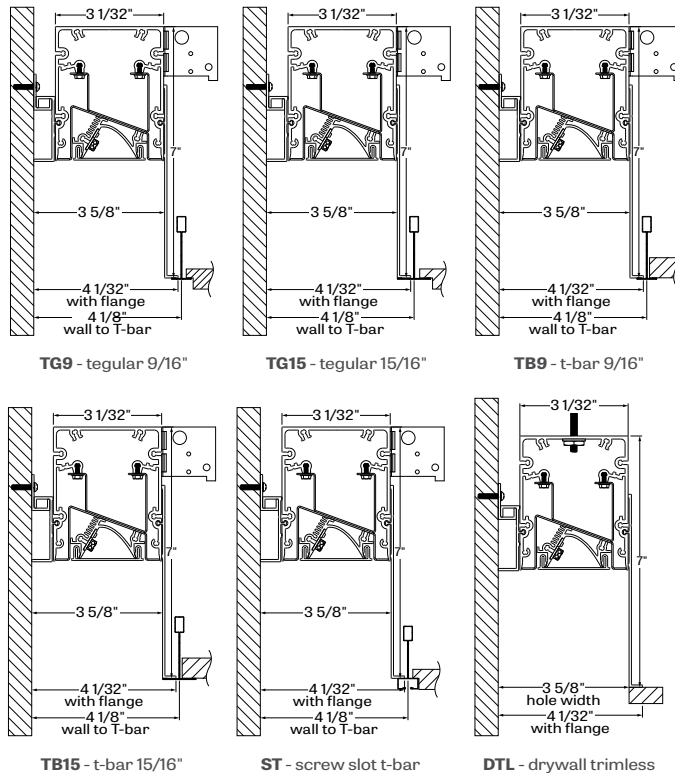
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-8'-277-
D-1-DTL-W

Notes:

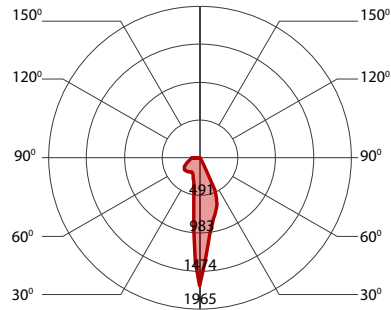
Type:**RC8**

LAI16-104794

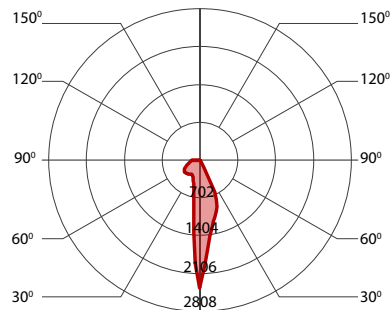
VIA SKIM 3 LED

RECESSED

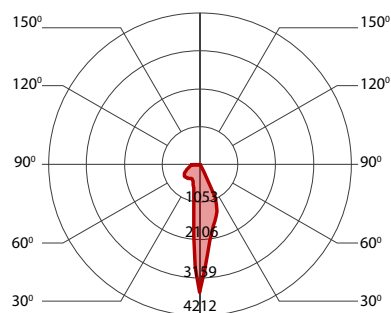
LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-9'-277-
D-1-DTL-W

Notes:

Type:**RC9**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

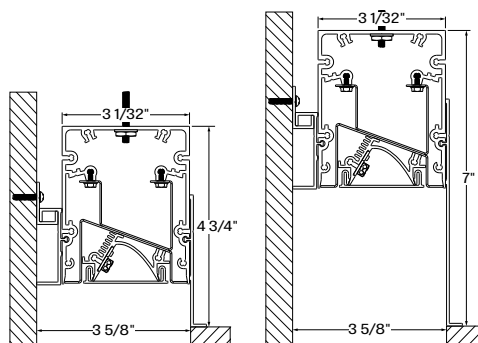
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

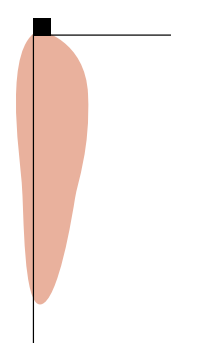
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
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Catalog Number:

V3SKID-GRO-LED-80-500-30-9'-277-
D-1-DTL-W

Notes:

Type:**RC9**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

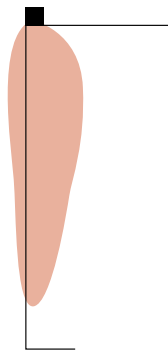
LIGHT SOURCE - LED

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PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
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LIGHT DISTRIBUTION

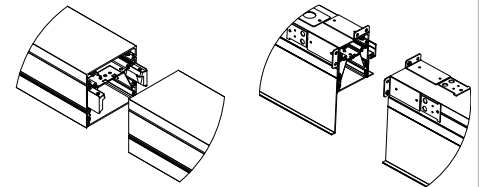
VSKI3D-GRO-LED-80-750-NA-40-20
Wall Luminaires: 20' run
Lumen Output: 750 lm/ft
Watts: 10.5 watts/ft
Ceiling Height: 10'
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-9'-277-
D-1-DTL-W

Notes:

Type:**RC9**

LAI16-104794

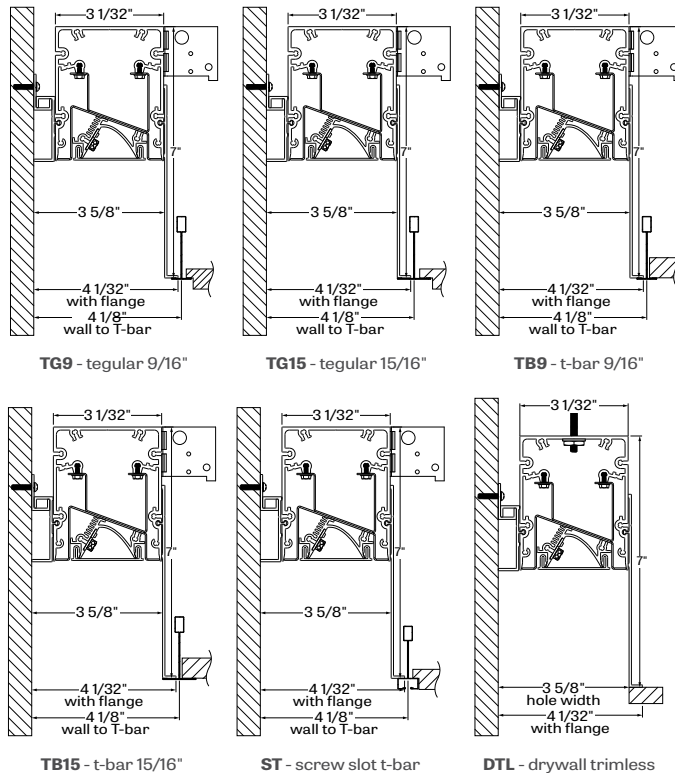
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-9'-277-
D-1-DTL-W

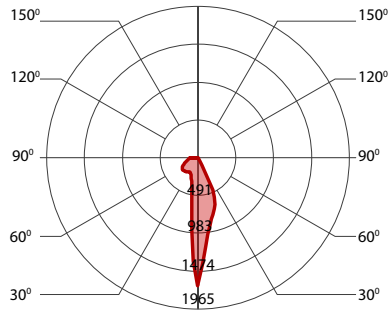
Notes:

Type:**RC9**

LAI16-104794

VIA SKIM 3 LED

RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT**

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-9'-
277-D (0.1% ELDOLEDSOLO)-1-
DTL-W

Type:

RC9-.1%

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____
TYPE: _____
NOTES: _____

ORDER GUIDE

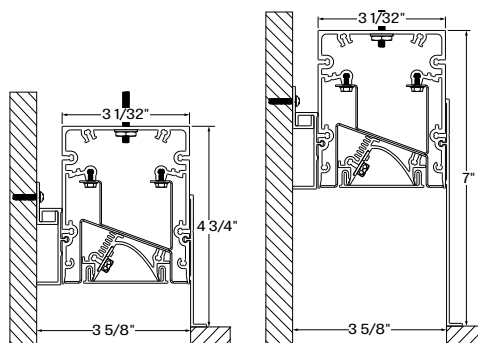
IC RATED

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

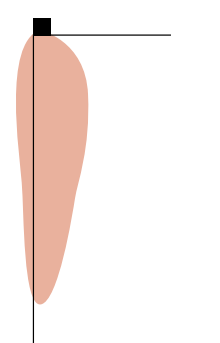
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-9'-
277-D (0.1% ELDOLEDSOLO)-1-
DTL-W

Type:

RC9-.1%

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

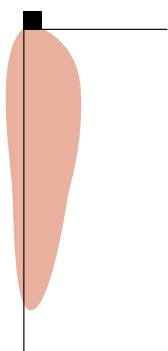
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

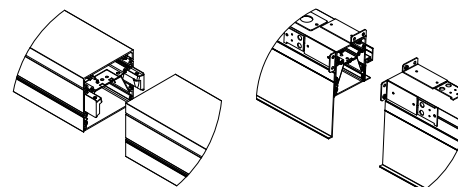
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-9'-
277-D (0.1% ELDOLEDSOLO)-1-
DTL-W

Type:**RC9-.1%**

LAI16-104794

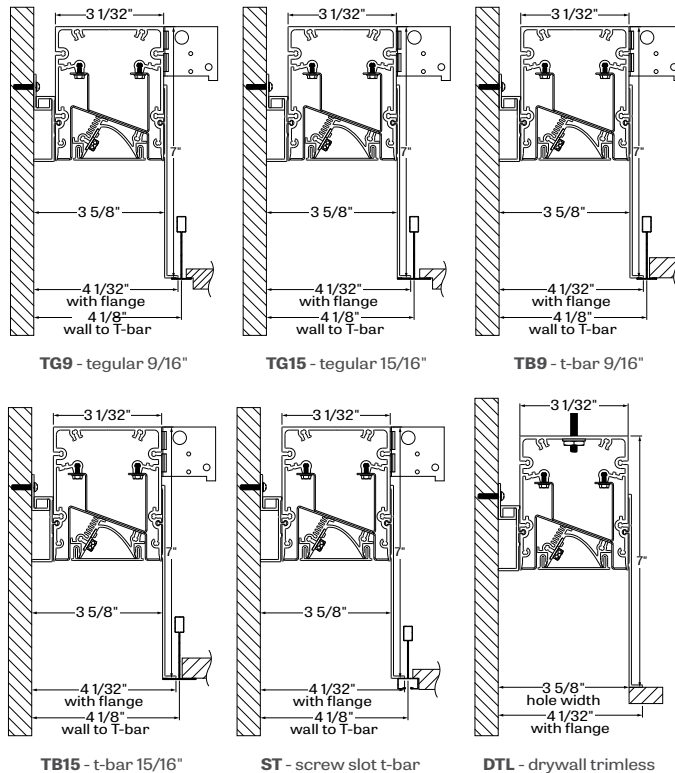
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

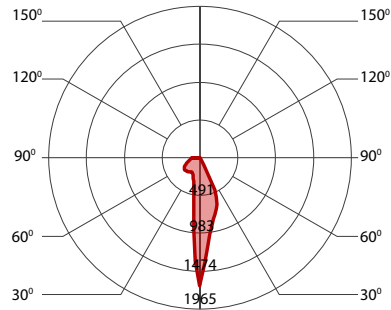
V3SKID-GRO-LED-80-500-30-9'-
277-D (0.1% ELDOLEDSOLO)-1-
DTL-W

Type:**RC9-.1%**

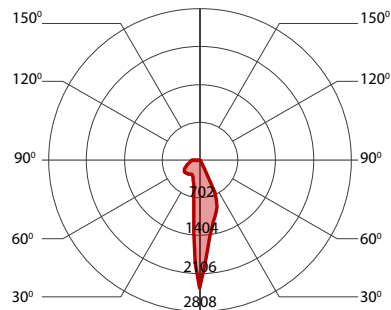
LAI16-104794

VIA SKIM 3 LED

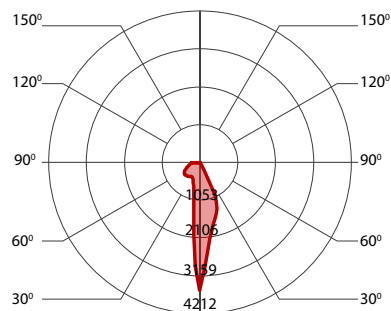
RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'-277
D-1-DTL-W

Notes:

Type:**RC10**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

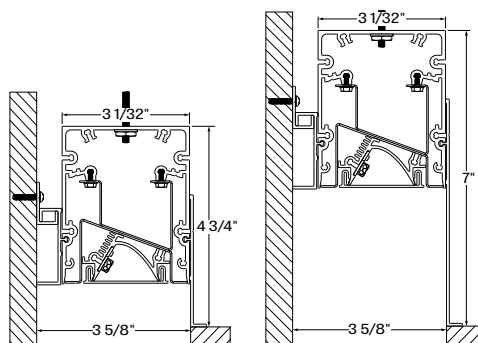
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

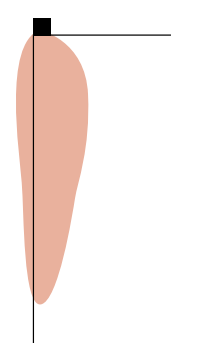
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'-277
D-1-DTL-W

Notes:

Type:**RC10**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

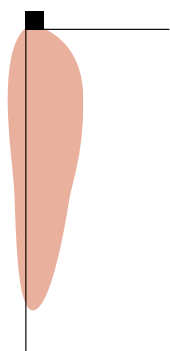
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

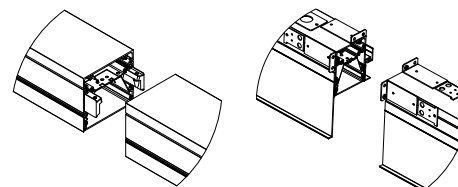
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'-277
D-1-DTL-W

Notes:

Type:**RC10**

LAI16-104794

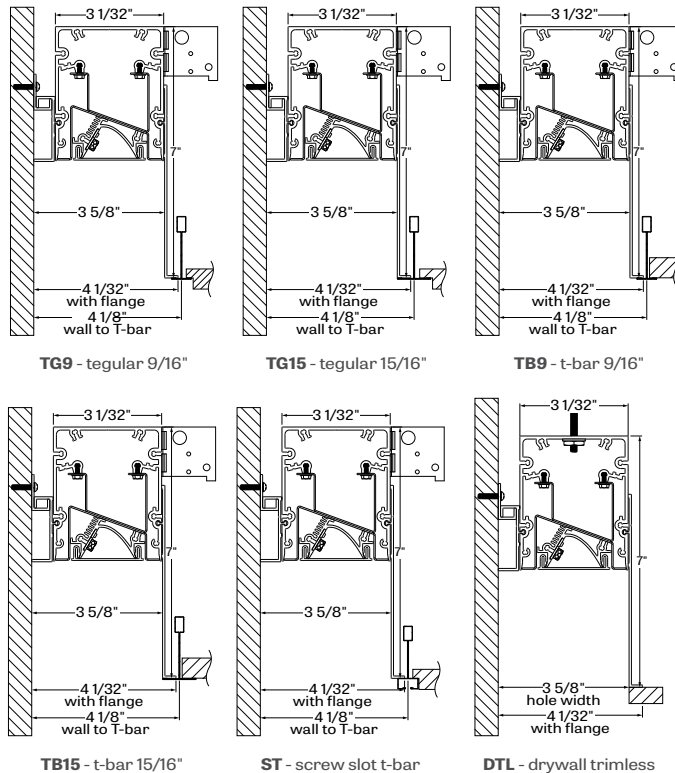
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'6"-
277-D-1-DTL-W

Notes:

Type:**RC10-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

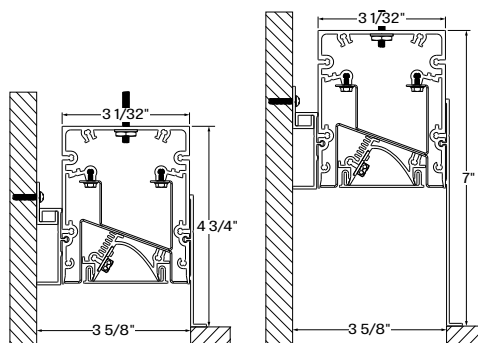
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

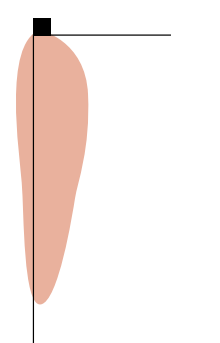
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'6"-
277-D-1-DTL-W

Notes:

Type:**RC10-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

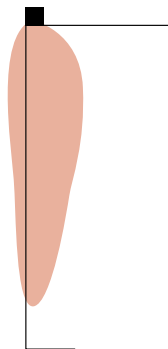
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

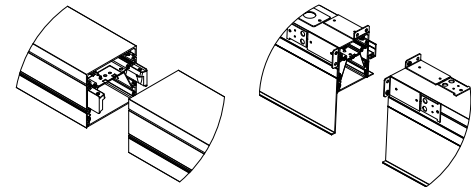
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'6"-
277-D-1-DTL-W

Notes:

Type:**RC10-6**

LAI16-104794

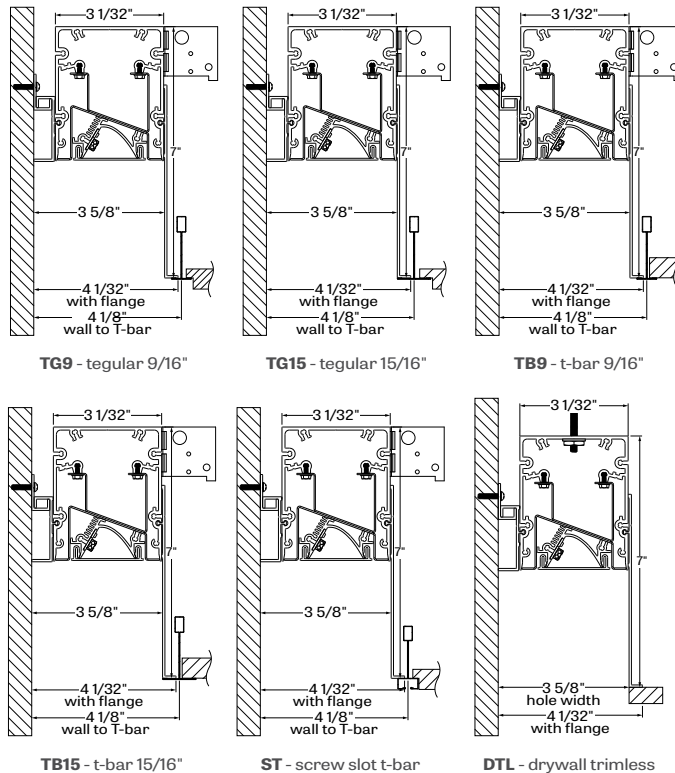
VIA SKIM 3 LED

RECESSED

LUMENWERX
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MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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SCIENCE BUILDING - FIXTURE QUOTE
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Catalog Number:

V3SKID-GRO-LED-80-500-30-10'6"-
277-D-1-DTL-W

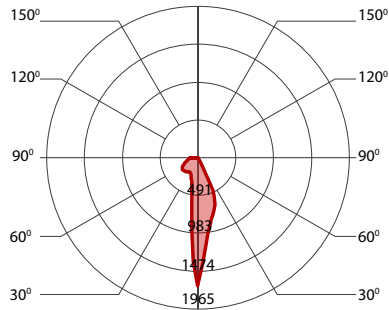
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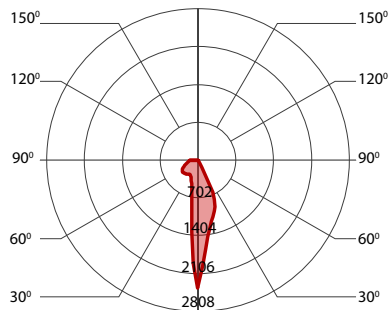
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VIA SKIM 3 LED

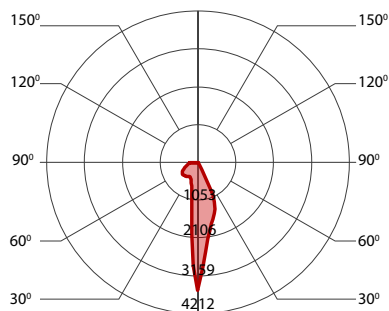
RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'-277
D-1-DTL-W

Notes:

Type:**RC12**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

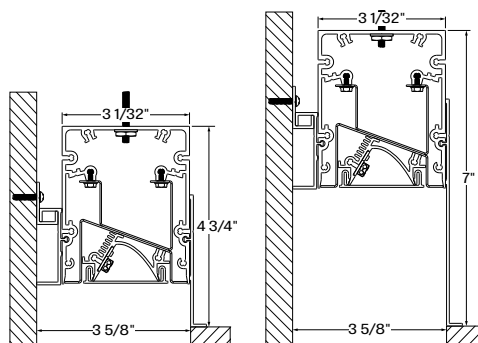
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

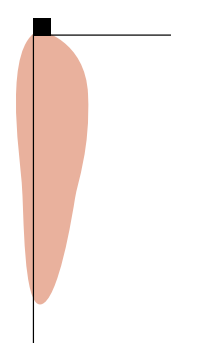
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'-277
D-1-DTL-W

Notes:

Type:**RC12**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

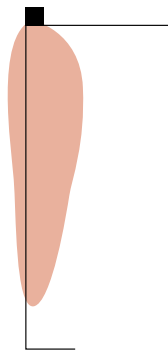
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

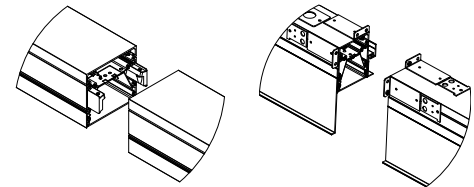
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

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25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
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11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

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Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency >84%, PF >0.9, THD <20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

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(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'-277
D-1-DTL-W

Notes:

Type:**RC12**

LAI16-104794

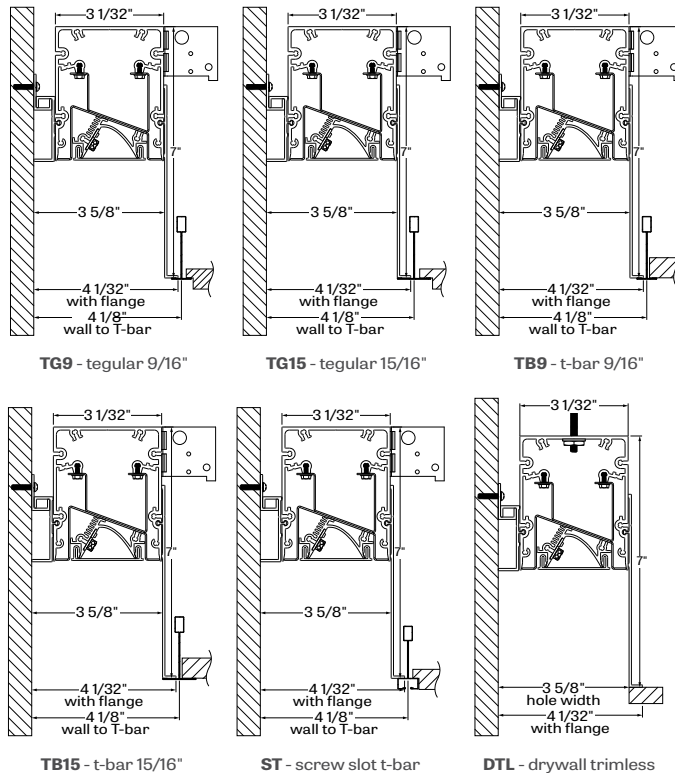
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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Catalog Number:

V3SKID-GRO-LED-80-500-30-12'-277
D-1-DTL-W

Notes:

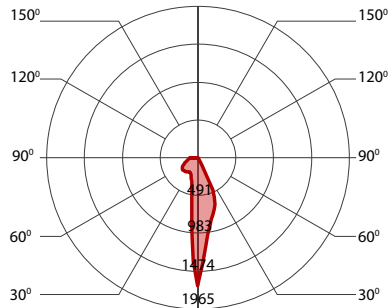
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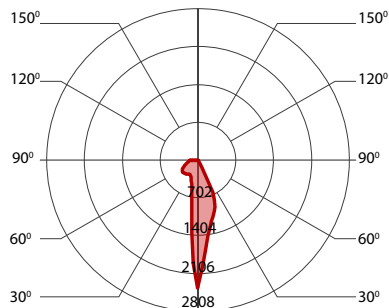
VIA SKIM 3 LED

RECESSED

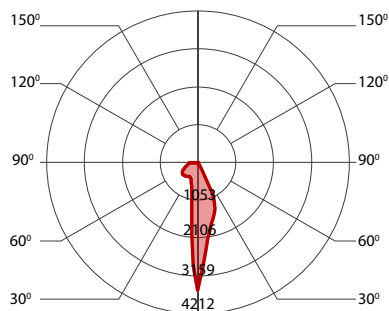
LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'6"-
277-D-1-DTL-W

Notes:

Type:**RC12-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

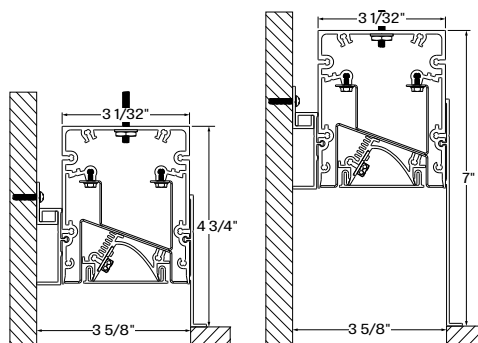
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
OPTICS	LIGHT SOURCE				
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12'	120 - 120V	D - dimming 0-10V	1 - 1 circuit	TG9 - tegular 9/16"
For all other specify length	277 - 277V	DA - Dali	+EB - emergency battery pack (for min 4' fixture)	TG15 - tegular 15/16"
#FT - nominal length in feet	UNV - 120V-277V	LA2 - Lutron Hi-Lume A - 2 wires 120V	+EM - emergency light circuit	TB9 - t-bar 9/16"
#IN - length in inches	347 - 347V	LA3 - Lutron Hi-Lume A - 3 wires/EcoS	+NL - night light circuit	TB15 - t-bar 15/16"
Continuous Run - for luminaires over 12'		LEH - Lutron EcoSystem H	+GTD - generator transfer device	ST - screw slot t-bar
Minimum Individual section 2'		LE5 - Lutron EcoSystem 5		DTL - drywall trimles
		OTH - other (consult factory)		

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white	FU - fuse
CF# - custom finish specify RAL#	FWC - flexible whip cable (6' std)
	CP - Chicago Plenum
	CU - custom

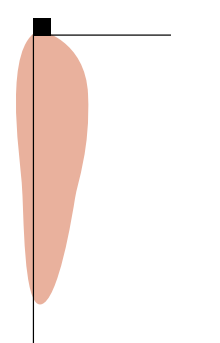
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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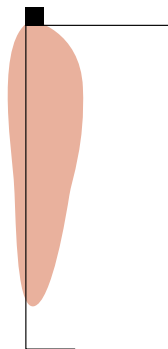
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medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

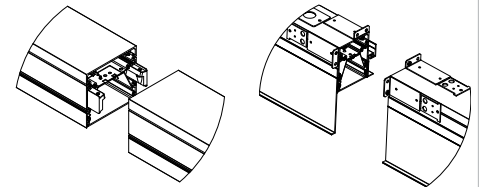
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

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11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'6"-
277-D-1-DTL-W

Notes:

Type:**RC12-6**

LAI16-104794

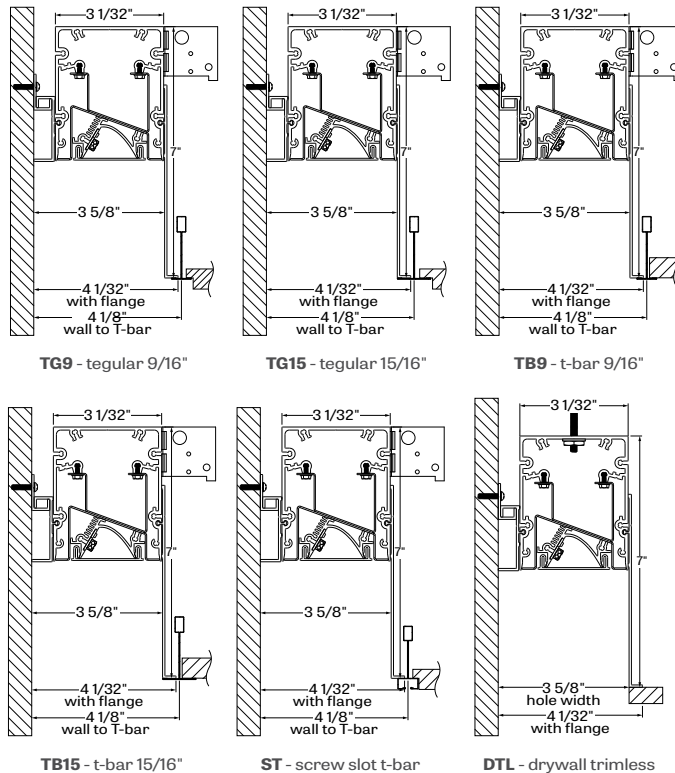
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'6"-
277-D-1-DTL-W

Notes:

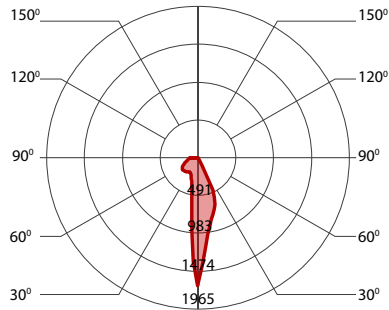
Type:**RC12-6**

LAI16-104794

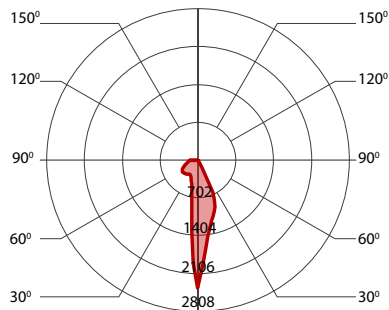
VIA SKIM 3 LED

RECESSED

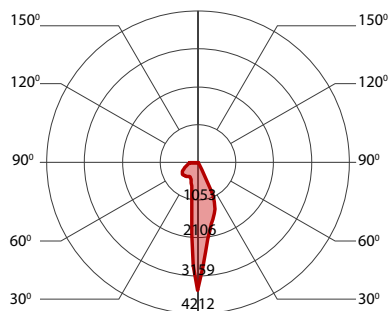
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WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-15'6"-
277-D (.1% ELDO LED)-1-DTL-W
Notes:

Type:**RC15-6-.1%**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

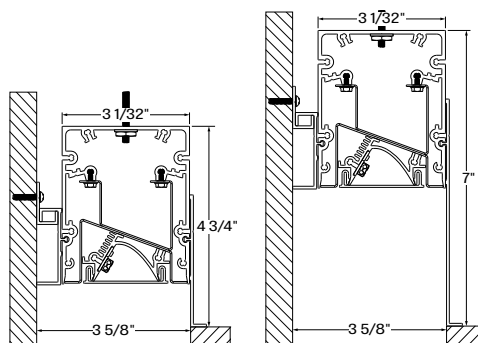
ORDER GUIDE**IC RATED**

LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit +EB - emergency battery pack (for min 4' fixture) +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

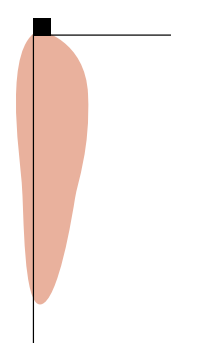
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-15'6"-
277-D (.1% ELDO LED)-1-DTL-W
Notes:

Type:**RC15-6-.1%**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
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OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

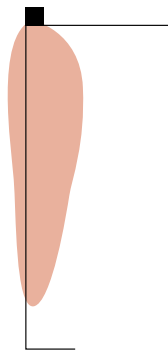
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

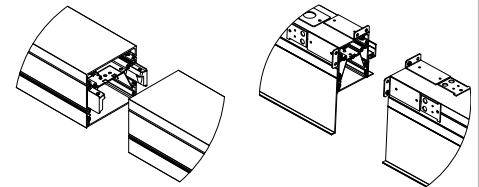
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-15'6"-
277-D (.1% ELDO LED)-1-DTL-W
Notes:

Type:**RC15-6-.1%**

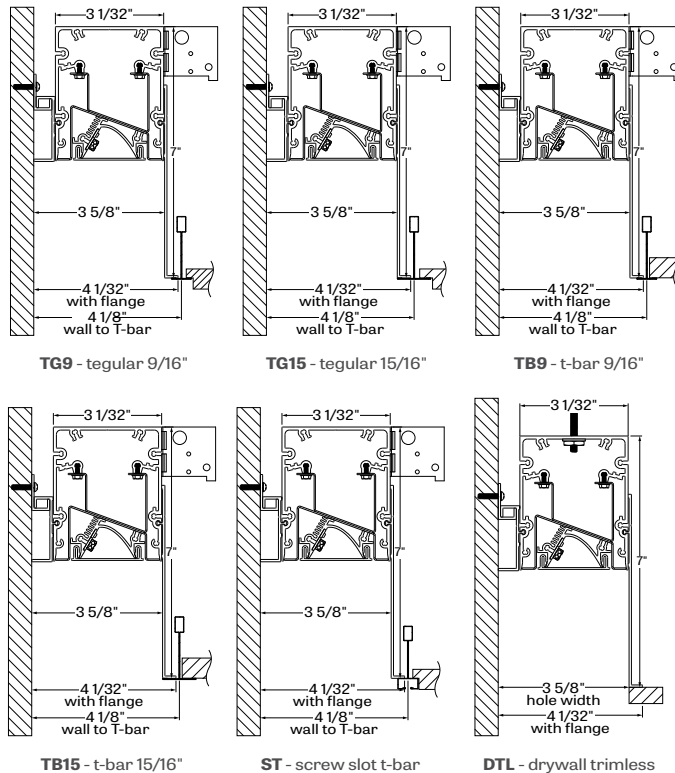
LAI16-104794

VIA SKIM 3 LED**RECESSED**

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

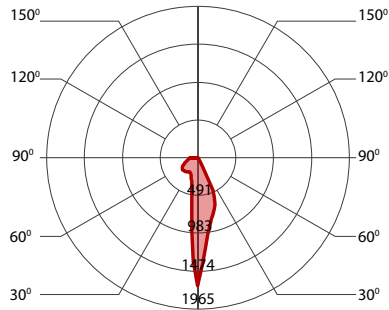
V3SKID-GRO-LED-80-500-30-15'6"-
277-D (.1% ELDO LED)-1-DTL-W
Notes:

Type:**RC15-6-.1%**

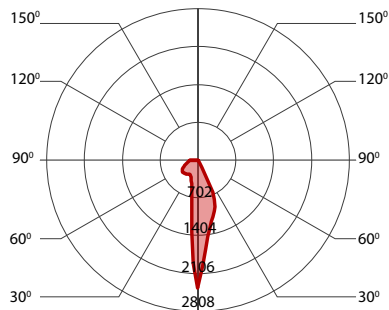
LAI16-104794

VIA SKIM 3 LED

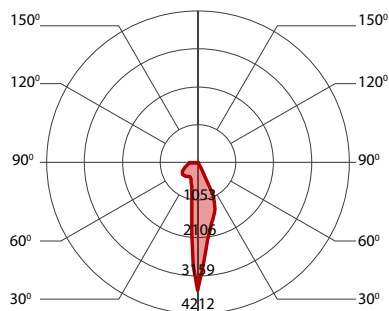
RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-18'6"-
277-D-1-DTL-W

Notes:

Type:**RC18-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
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Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

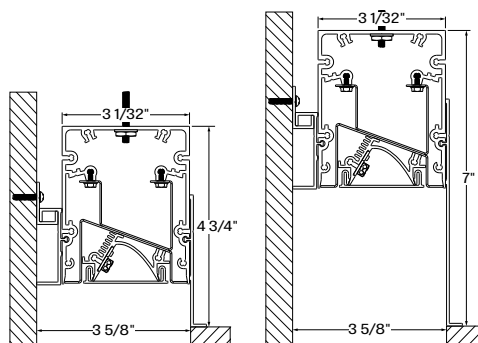
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
OPTICS	LIGHT SOURCE				
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12'	120 - 120V	D - dimming 0-10V	1 - 1 circuit	TG9 - tegular 9/16"
For all other specify length	277 - 277V	DA - Dali	+ #EB - emergency battery pack (for min 4' fixture)	TG15 - tegular 15/16"
#FT - nominal length in feet	UNV - 120V-277V	LA2 - Lutron Hi-Lume A - 2 wires 120V	+ #EM - emergency light circuit	TB9 - t-bar 9/16"
#IN - length in inches	347 - 347V	LA3 - Lutron Hi-Lume A - 3 wires/EcoS	+ #NL - night light circuit	TB15 - t-bar 15/16"
Continuous Run - for luminaires over 12'		LEH - Lutron EcoSystem H	+ #GTD - generator transfer device	ST - screw slot t-bar
Minimum Individual section 2'		LE5 - Lutron EcoSystem 5		DTL - drywall trimles
		OTH - other (consult factory)		

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white	FU - fuse
CF# - custom finish specify RAL#	FWC - flexible whip cable (6' std)
	CP - Chicago Plenum
	CU - custom

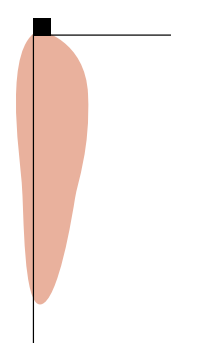
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-18'6"-
277-D-1-DTL-W

Notes:

Type:**RC18-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
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OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

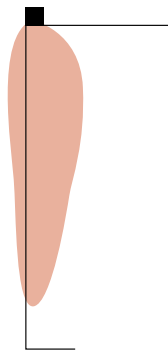
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

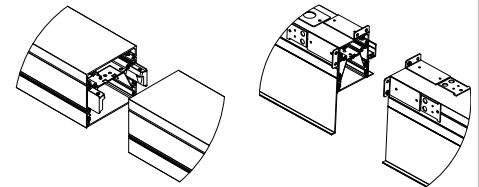
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-18'6"-
277-D-1-DTL-W

Notes:

Type:**RC18-6**

LAI16-104794

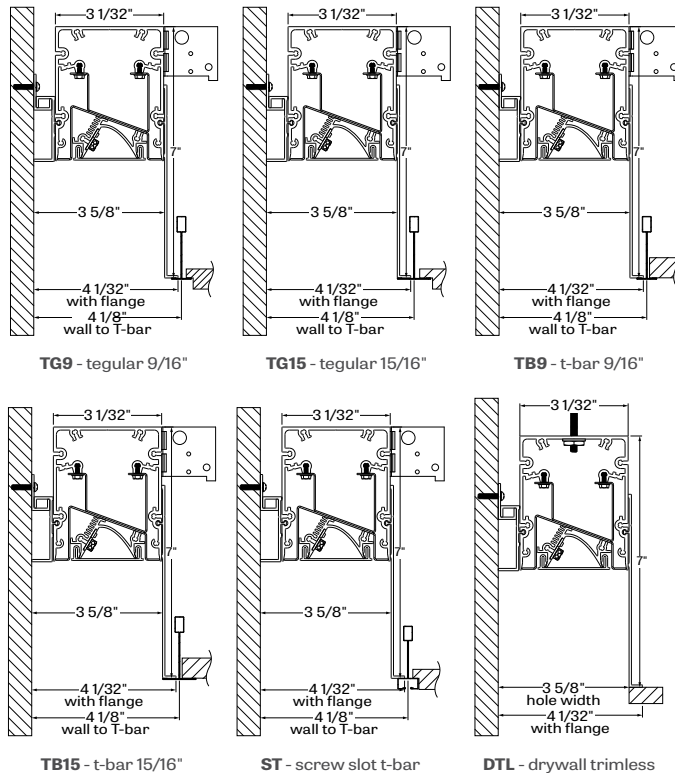
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-18'6"-
277-D-1-DTL-W

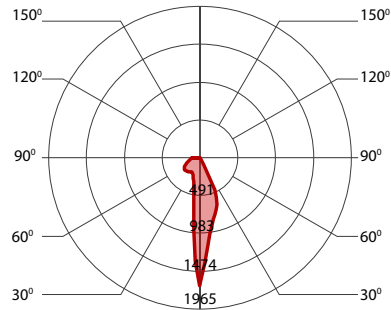
Notes:

Type:**RC18-6**

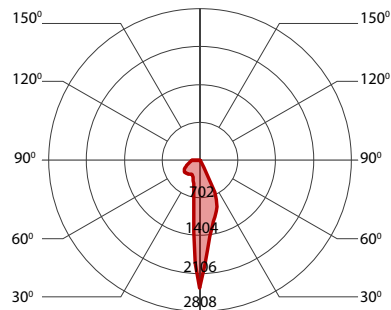
LAI16-104794

VIA SKIM 3 LED

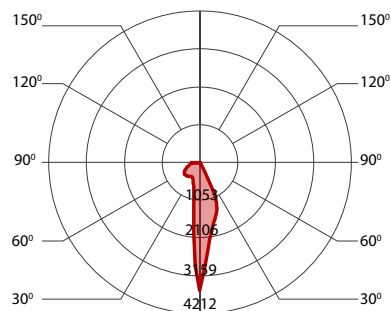
RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-34'3"-
277-D-1-DTL-W

Notes:

Type:**RC34-3**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

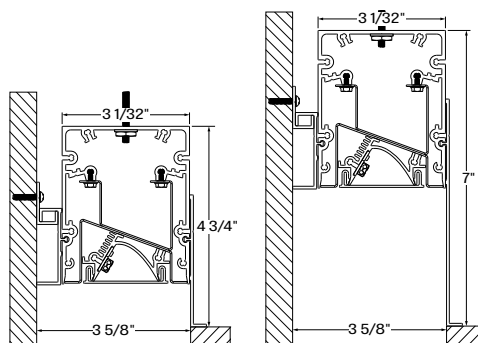
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

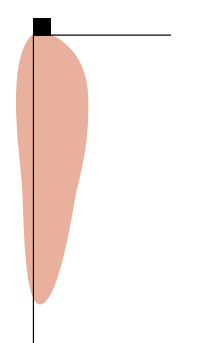
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-34'3"-
277-D-1-DTL-W

Notes:

Type:**RC34-3**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

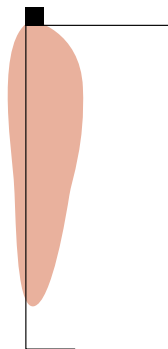
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

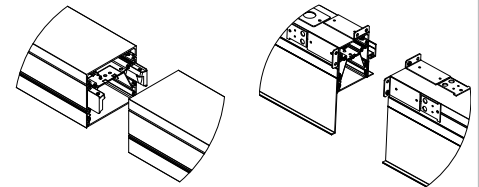
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-34'3"-
277-D-1-DTL-W

Notes:

Type:**RC34-3**

LAI16-104794

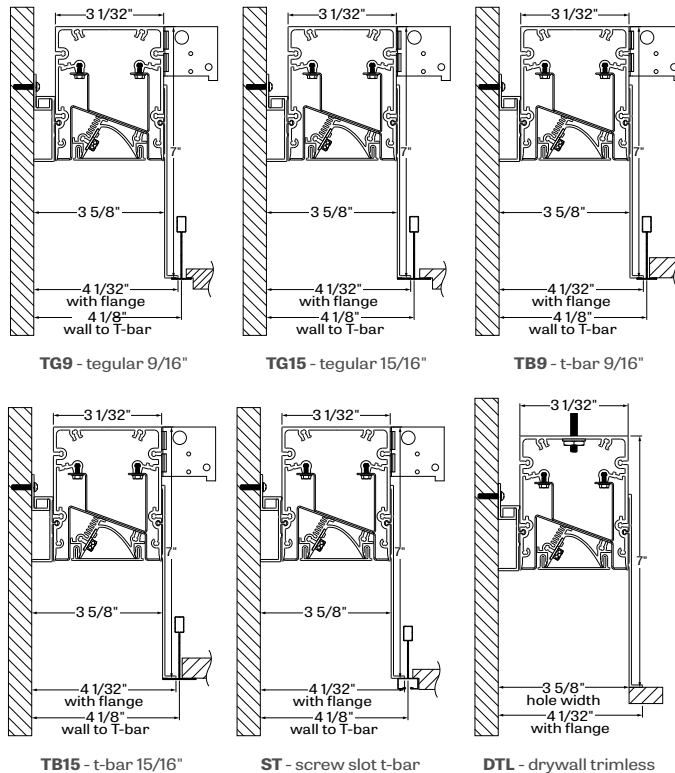
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-34'3"-
277-D-1-DTL-W

Notes:

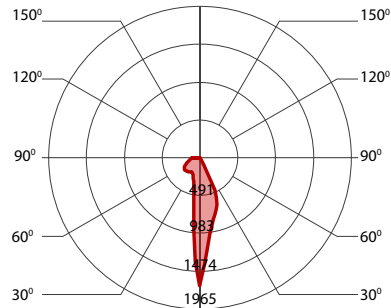
Type:**RC34-3**

LAI16-104794

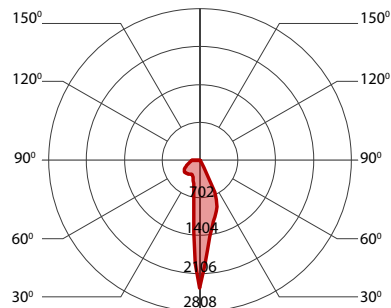
VIA SKIM 3 LED

RECESSED

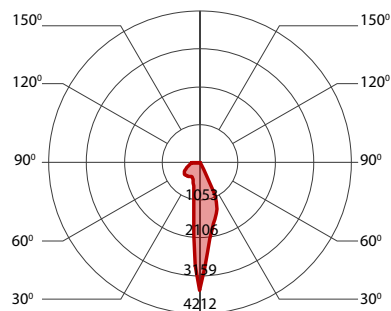
LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-34'6"-
277-D-1-DTL-W

Notes:

Type:**RC34-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

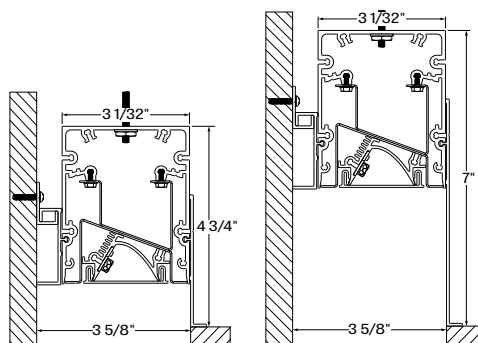
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

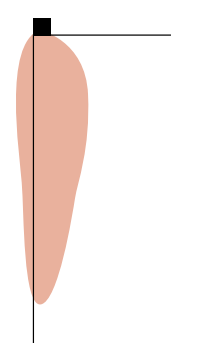
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-34'6"-
277-D-1-DTL-W

Notes:

Type:**RC34-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

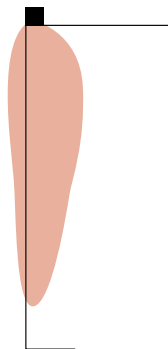
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

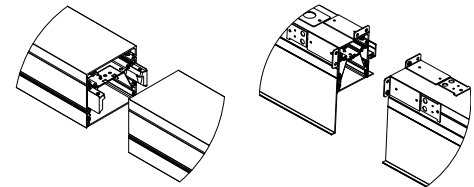
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-34'6"-
277-D-1-DTL-W

Notes:

Type:**RC34-6**

LAI16-104794

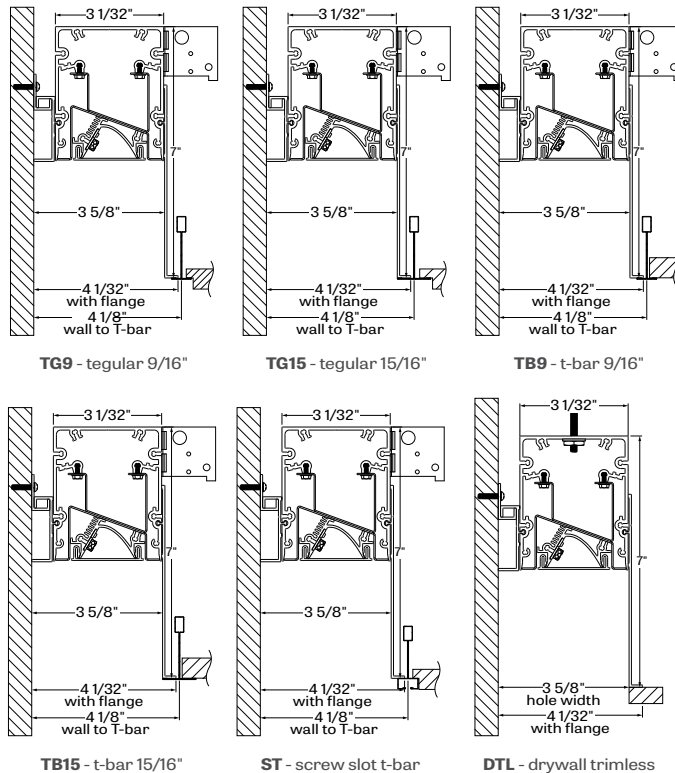
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-34'6"-
277-D-1-DTL-W

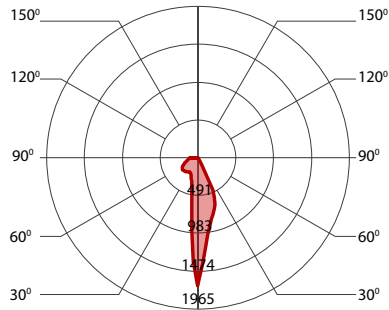
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Type:**RC34-6**

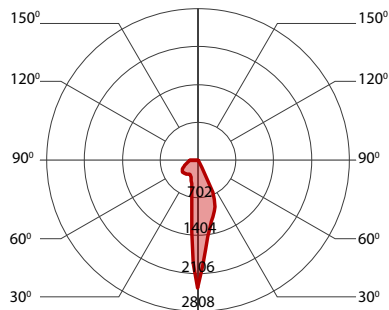
LAI16-104794

VIA SKIM 3 LED

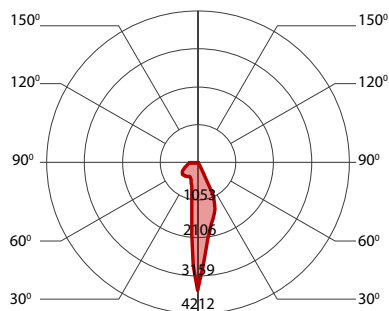
RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-43'6"-
277-D-1-DTL-W

Notes:

Type:**RC43-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

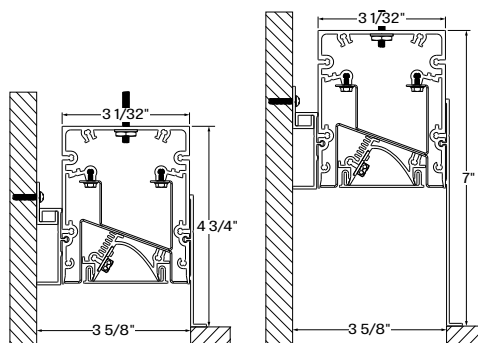
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
OPTICS	LIGHT SOURCE				
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
43' 6"				
Standard sections - 2', 3', 4', 5', 8' & 12'	120 - 120V	D - dimming 0-10V	1 - 1 circuit	TG9 - tegular 9/16"
For all other specify length	277 - 277V	DA - Dali	+EB - emergency battery pack (for min 4' fixture)	TG15 - tegular 15/16"
#FT - nominal length in feet	UNV - 120V-277V	LA2 - Lutron Hi-Lume A - 2 wires 120V	+EM - emergency light circuit	TB9 - t-bar 9/16"
#IN - length in inches	347 - 347V	LA3 - Lutron Hi-Lume A - 3 wires/EcoS	+NL - night light circuit	TB15 - t-bar 15/16"
Continuous Run - for luminaires over 12'		LEH - Lutron EcoSystem H	+GTD - generator transfer device	ST - screw slot t-bar
Minimum Individual section 2'		LE5 - Lutron EcoSystem 5		DTL - drywall trimles
		OTH - other (consult factory)		

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white	FU - fuse
CF# - custom finish specify RAL#	FWC - flexible whip cable (6' std)
	CP - Chicago Plenum
	CU - custom

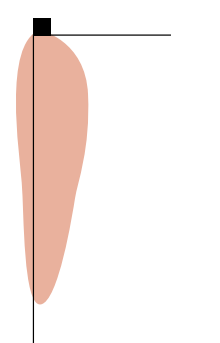
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-43'6"-
277-D-1-DTL-W

Notes:

Type:**RC43-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

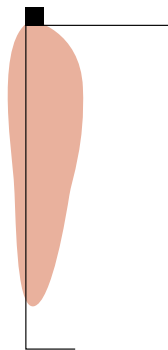
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

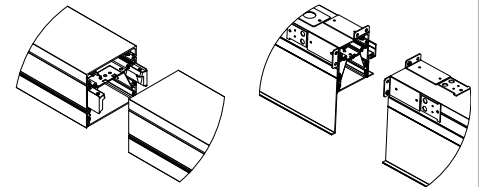
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-43'6"-
277-D-1-DTL-W

Notes:

Type:**RC43-6**

LAI16-104794

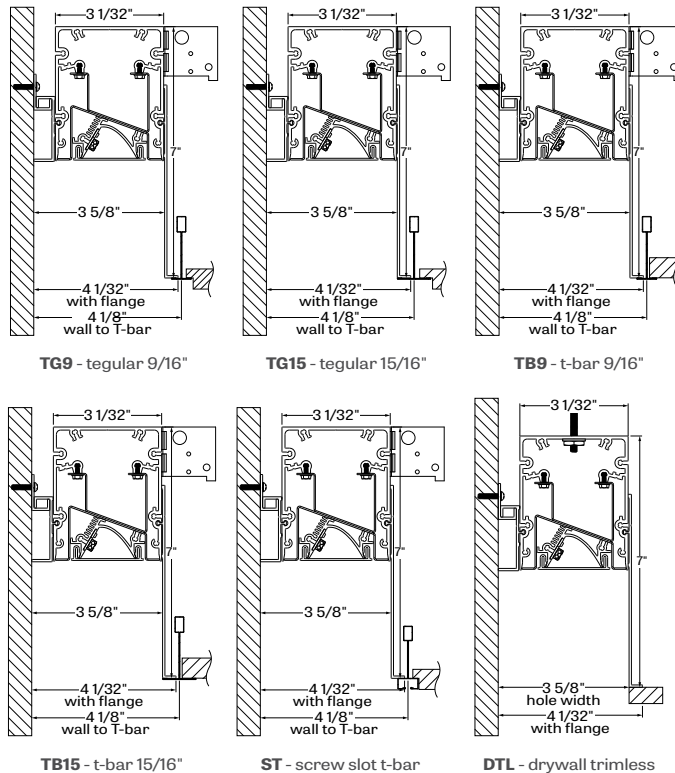
VIA SKIM 3 LED

RECESSED

LUMENWERX
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MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-43'6"-
277-D-1-DTL-W

Notes:

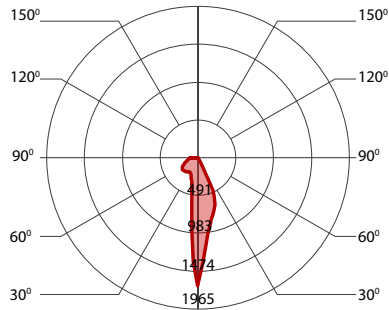
Type:**RC43-6**

LAI16-104794

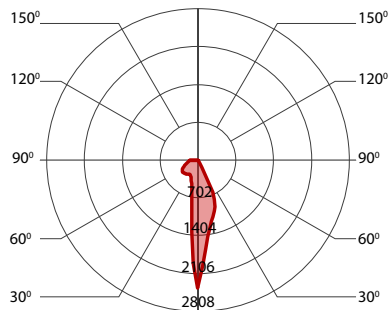
VIA SKIM 3 LED

RECESSED

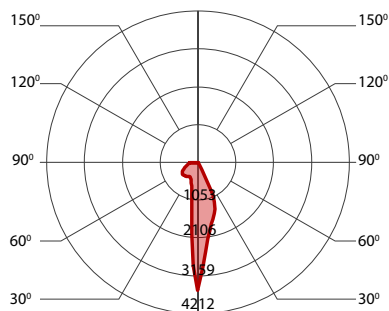
LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-45'8"-
277-D-1-DTL-W

Notes:

Type:**RC45-8**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

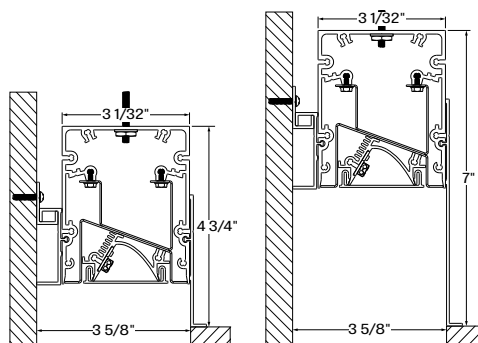
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

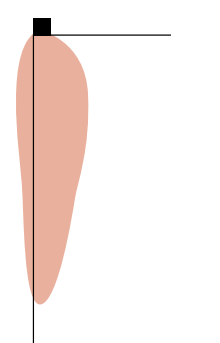
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-45'8"-
277-D-1-DTL-W

Notes:

Type:**RC45-8**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

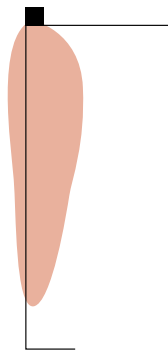
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

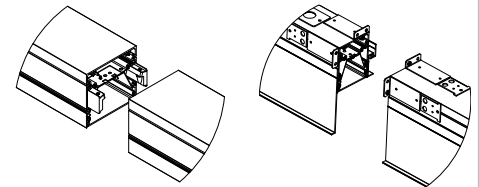
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency >84%, PF >0.9, THD <20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-45'8"-
277-D-1-DTL-W

Notes:

Type:**RC45-8**

LAI16-104794

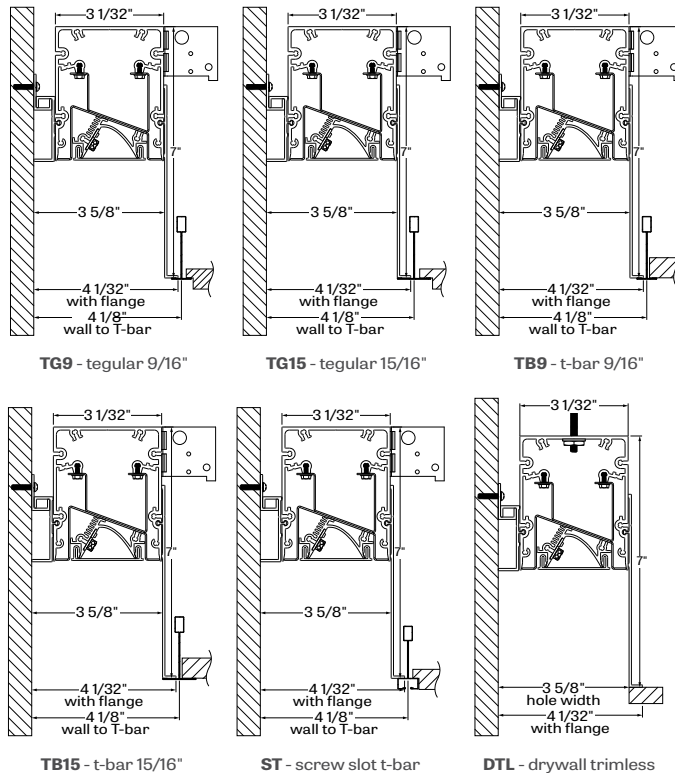
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-45'8"-
277-D-1-DTL-W

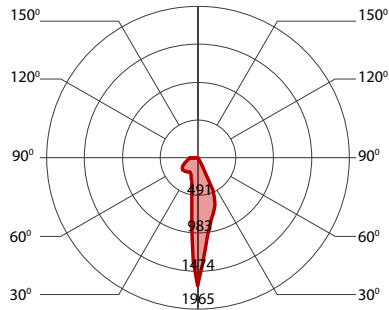
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Type:**RC45-8**

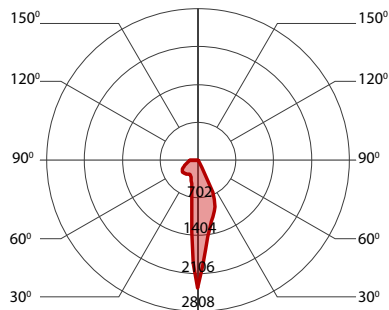
LAI16-104794

VIA SKIM 3 LED

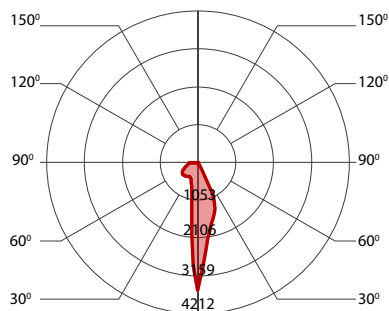
RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
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500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-6-277-
D-1-ST-W

Notes:

Type:**RCG6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

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PROJECT: _____

TYPE: _____

NOTES: _____

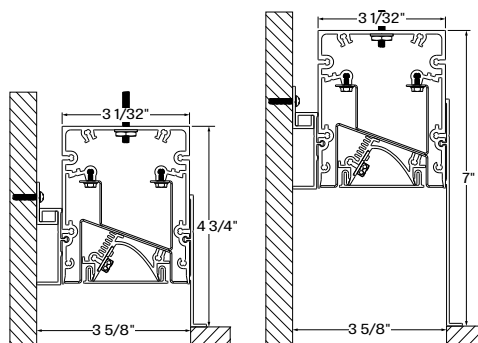
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
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Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

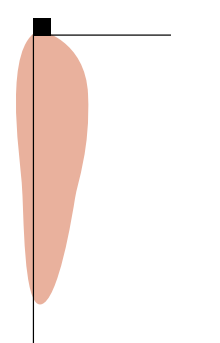
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-6-277-
D-1-ST-W

Notes:

Type:**RCG6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

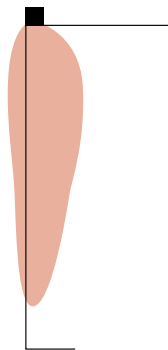
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

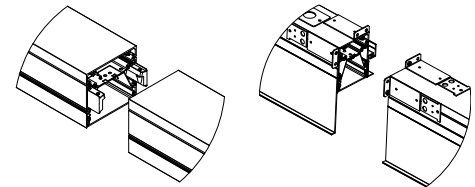
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency >84%, PF >0.9, THD <20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

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Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-6-277-
D-1-ST-W

Notes:

Type:**RCG6**

LAI16-104794

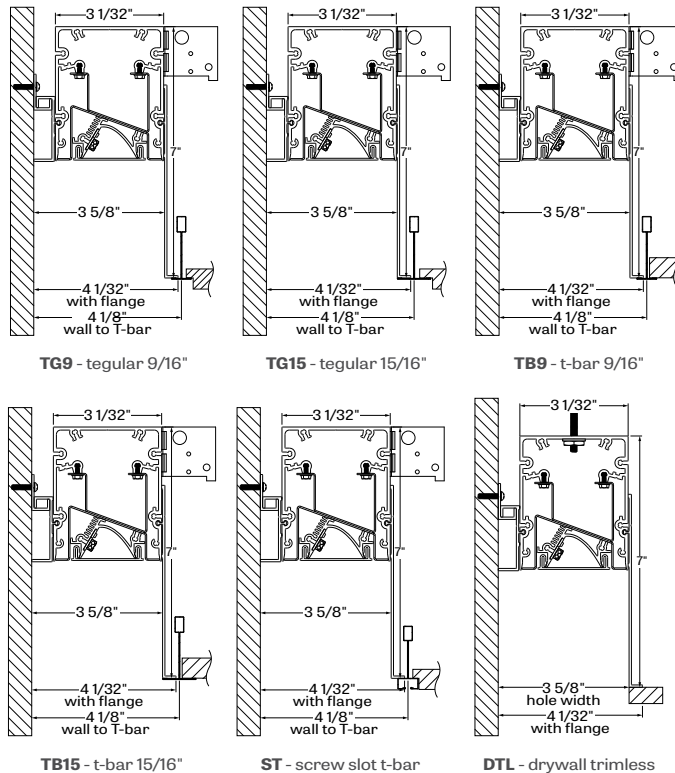
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-6-277-
D-1-ST-W

Notes:

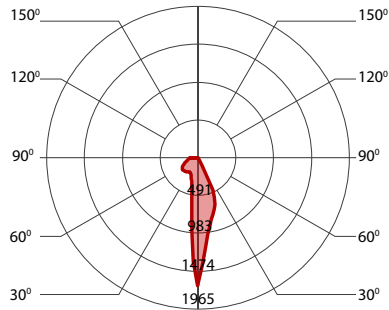
Type:**RCG6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-9'9"-
277-D-1-ST"-W

Notes:

Type:**RCG9-9**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4¾" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

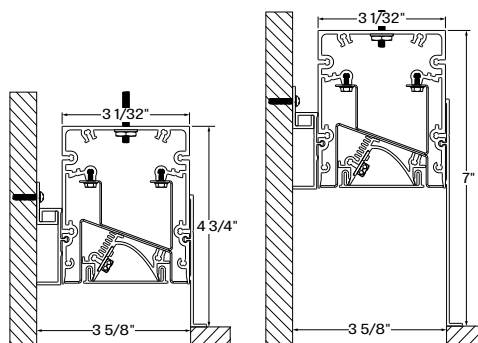
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

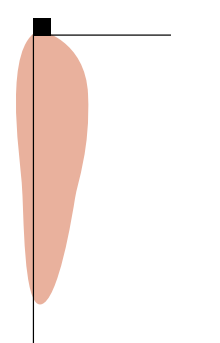
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-9'9"-
277-D-1-ST"-W

Notes:

Type:**RCG9-9**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

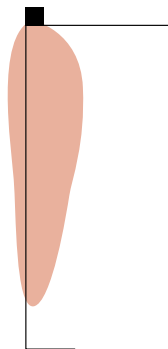
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

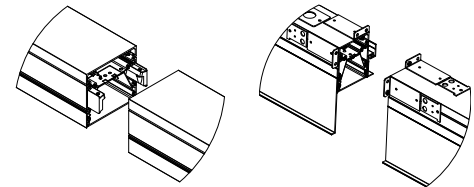
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
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11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency >84%, PF >0.9, THD <20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-9'9"-
277-D-1-ST"-W

Notes:

Type:**RCG9-9**

LAI16-104794

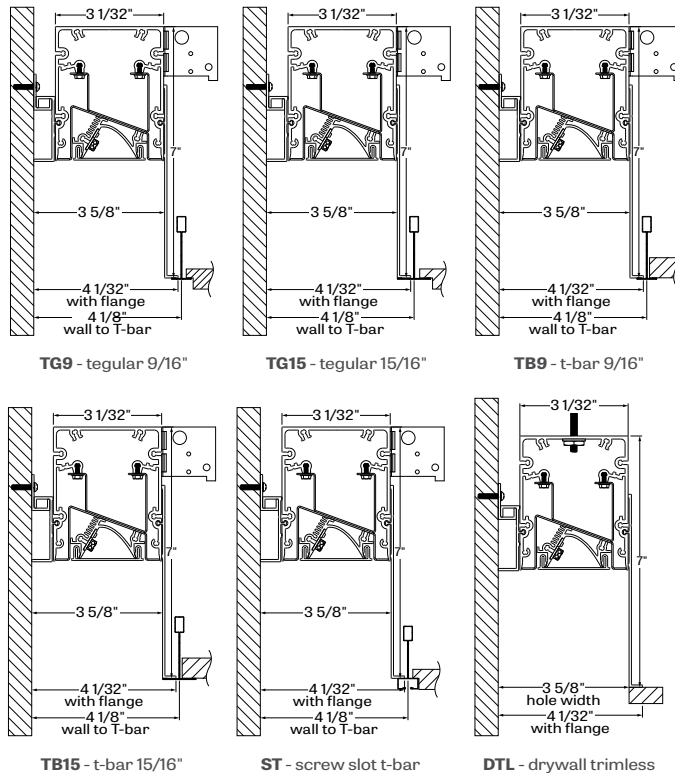
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'-277
D-1-ST-W

Notes:

Type:**RCG10**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

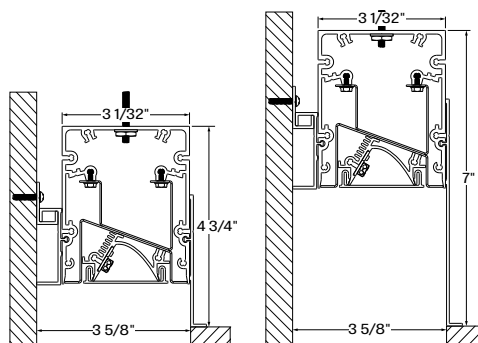
ORDER GUIDE**IC RATED**

LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit +EB - emergency battery pack (for min 4' fixture) +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

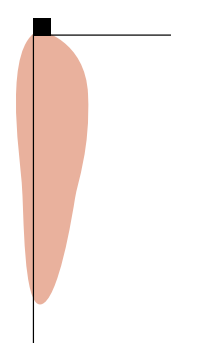
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'-277
D-1-ST-W

Notes:

Type:**RCG10**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

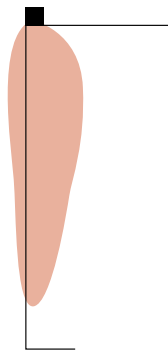
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Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

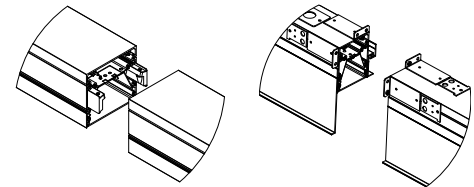
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
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Grid joining

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Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'-277
D-1-ST-W

Notes:

Type:**RCG10**

LAI16-104794

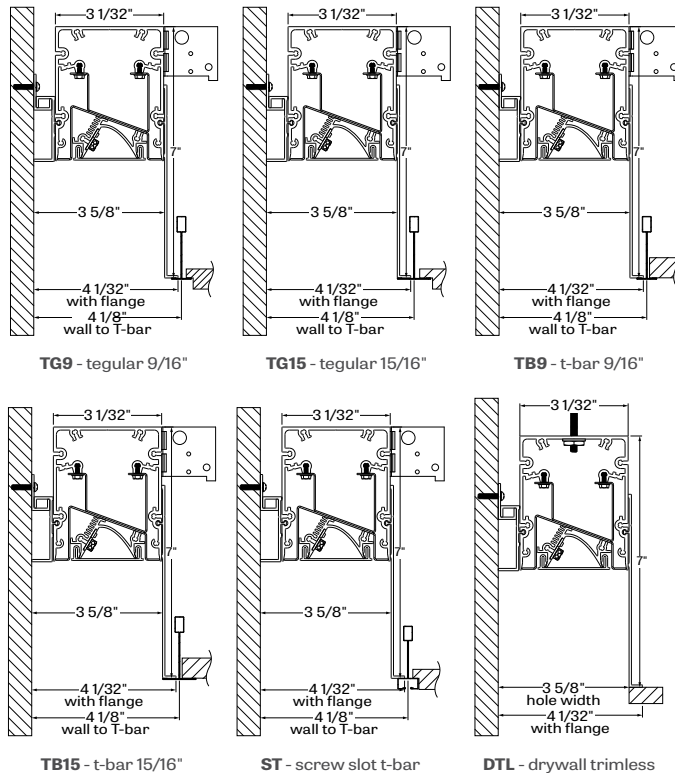
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

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WEIGHT

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Via Skim 3 8ft - 22.47lbs - 10.2kg

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CERTIFICATIONS

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Engineer: WILLIAM TAO AND ASSOCIATES
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Catalog Number:

V3SKID-GRO-LED-80-500-30-10'-277
D-1-ST-W

Notes:

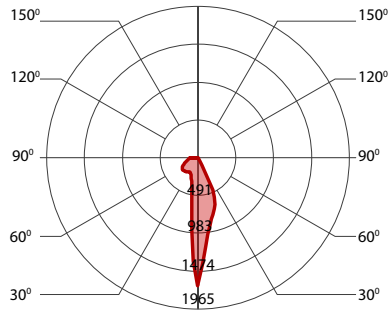
Type:**RCG10**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'6"-
277-D-1-ST-W

Notes:

Type:**RCG10-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

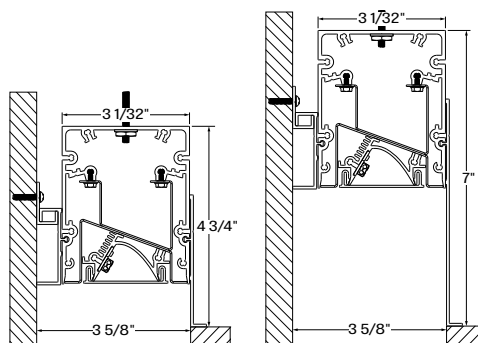
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

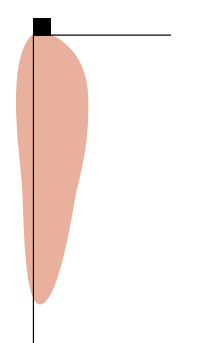
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'6"-
277-D-1-ST-W

Notes:

Type:**RCG10-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

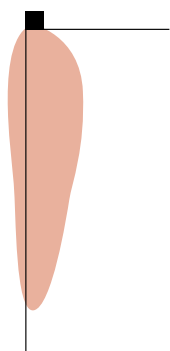
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

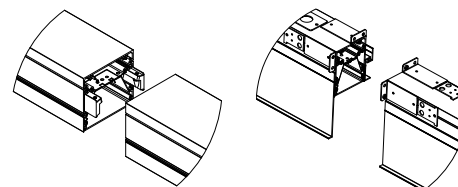
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'6"-
277-D-1-ST-W

Notes:

Type:**RCG10-6**

LAI16-104794

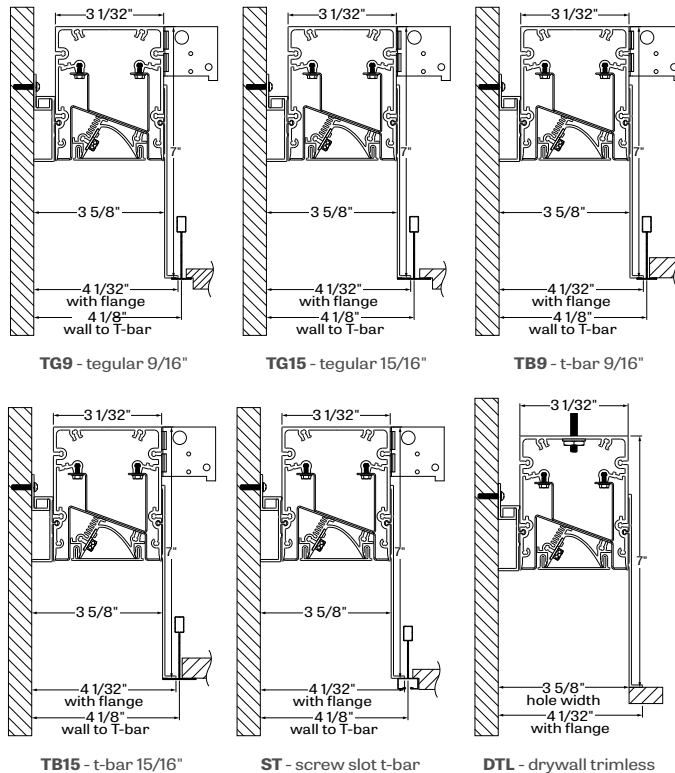
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-10'6"-
277-D-1-ST-W

Notes:

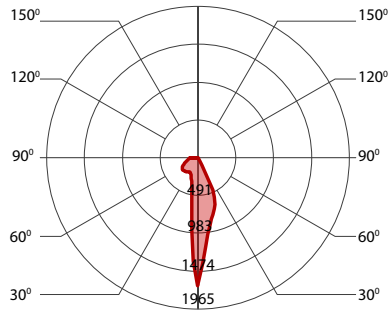
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LAI16-104794

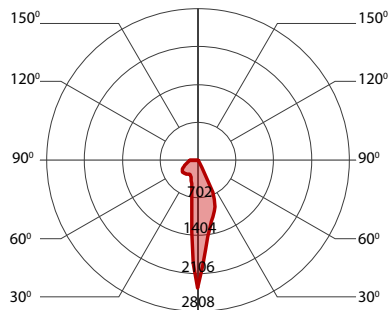
VIA SKIM 3 LED

RECESSED

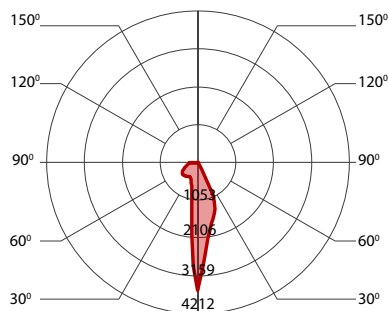
LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'-277
D-1-ST-W

Notes:

Type:**RCG12**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

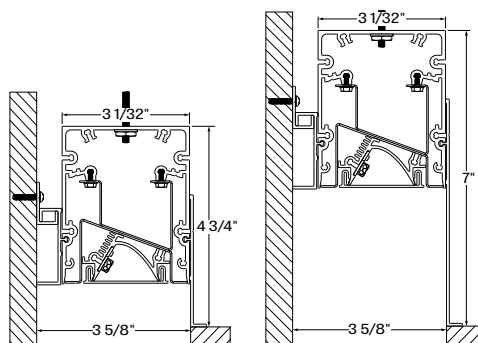
ORDER GUIDE**IC RATED**

LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12'	120 - 120V	D - dimming 0-10V	1 - 1 circuit	TG9 - tegular 9/16"
For all other specify length	277 - 277V	DA - Dali	+EB - emergency battery pack (for min 4' fixture)	TG15 - tegular 15/16"
#FT - nominal length in feet	UNV - 120V-277V	LA2 - Lutron Hi-Lume A - 2 wires 120V	+EM - emergency light circuit	TB9 - t-bar 9/16"
#IN - length in inches	347 - 347V	LA3 - Lutron Hi-Lume A - 3 wires/EcoS	+NL - night light circuit	TB15 - t-bar 15/16"
Continuous Run - for luminaires over 12'		LEH - Lutron EcoSystem H	+GTD - generator transfer device	ST - screw slot t-bar
Minimum Individual section 2'		LE5 - Lutron EcoSystem 5		DTL - drywall trimles
		OTH - other (consult factory)		

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white	FU - fuse
CF# - custom finish specify RAL#	FWC - flexible whip cable (6' std)
	CP - Chicago Plenum
	CU - custom

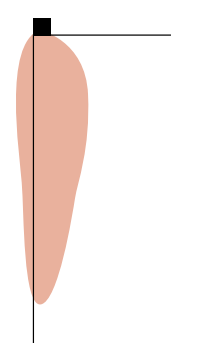
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'-277
D-1-ST-W

Notes:

Type:**RCG12**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

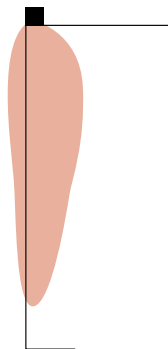
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

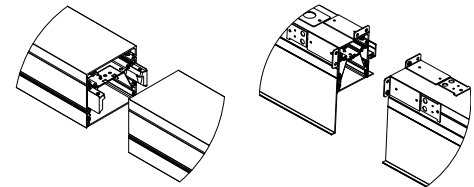
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'-277
D-1-ST-W

Notes:

Type:**RCG12**

LAI16-104794

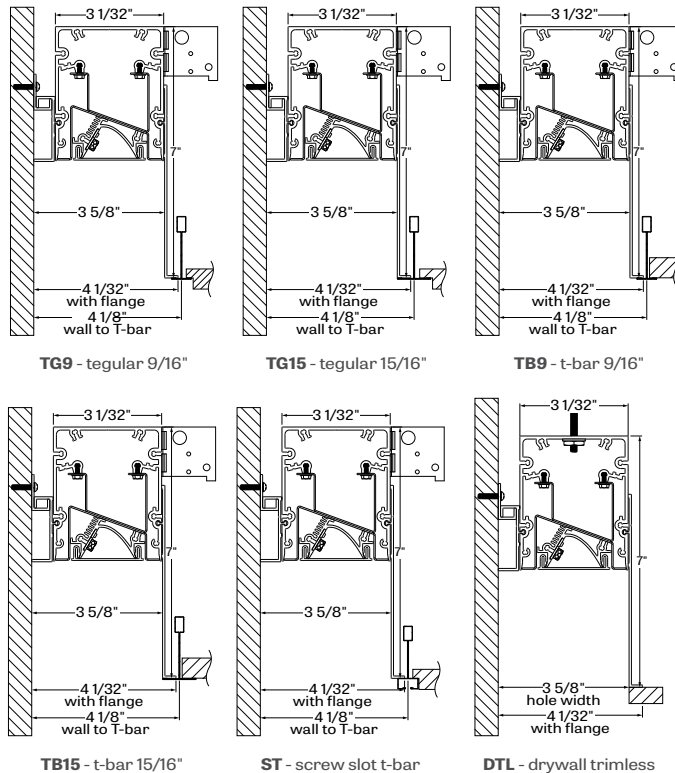
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-12'-277
D-1-ST-W

Notes:

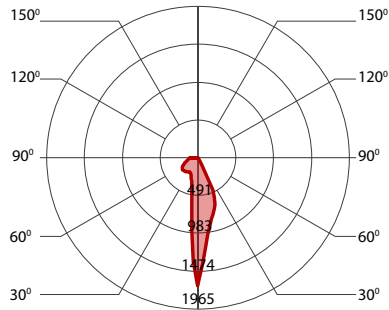
Type:**RCG12**

LAI16-104794

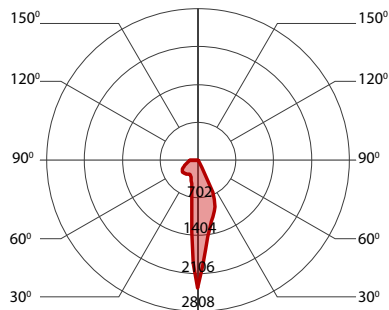
VIA SKIM 3 LED

RECESSED

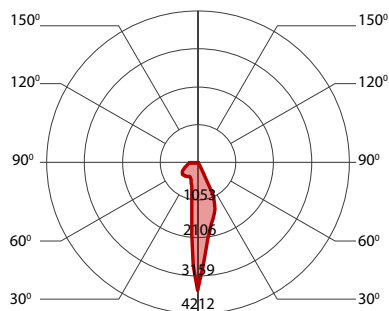
LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-15'-277

D-1-ST-W

Notes:

Type:**RCG15**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

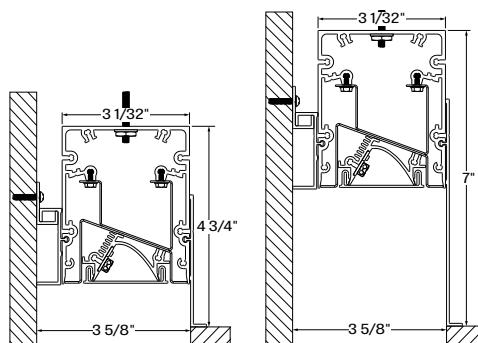
ORDER GUIDE**IC RATED**

LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit +EB - emergency battery pack (for min 4' fixture) +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

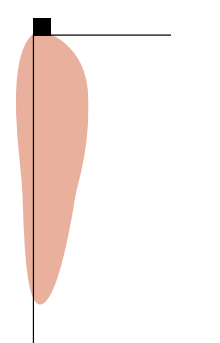
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-15'-277
D-1-ST-W

Notes:

Type:**RCG15**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

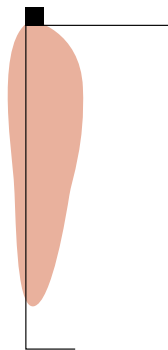
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

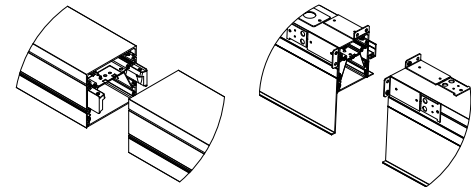
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-15'-277
D-1-ST-W

Notes:

Type:**RCG15**

LAI16-104794

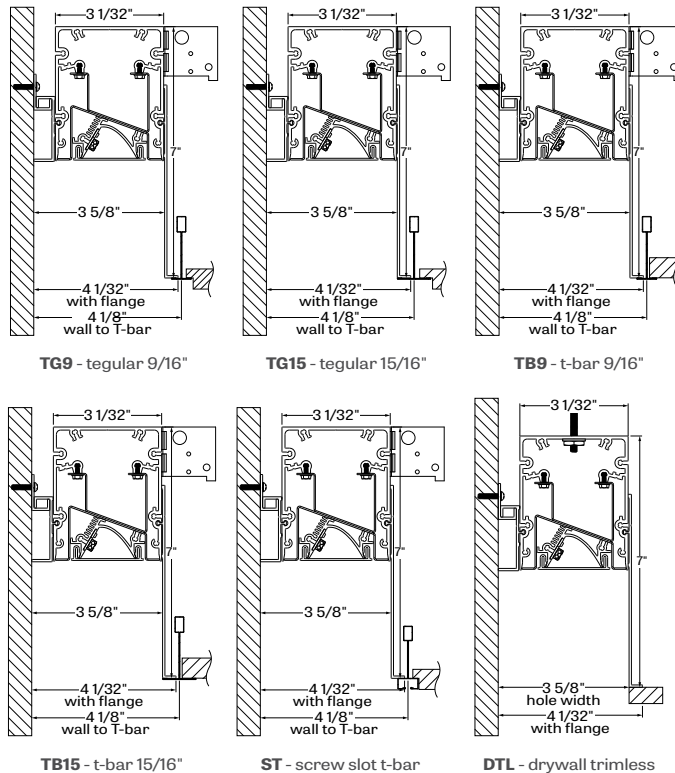
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-15'-277
D-1-ST-W

Notes:

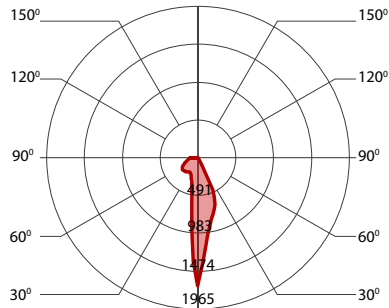
Type:**RCG15**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LWERX-V3SKID-GRO-LED-80-500-16FT-27
7-D-1-ST-W

Type:**RCG16**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4¾" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

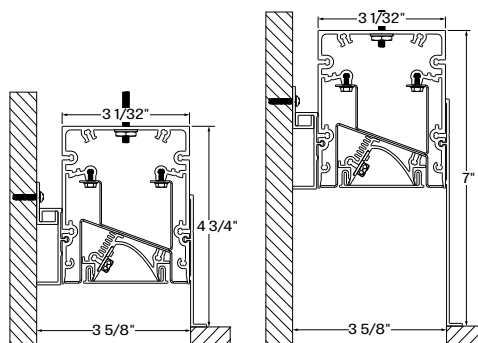
ORDER GUIDE**IC RATED**

LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12'	120 - 120V	D - dimming 0-10V	1 - 1 circuit	TG9 - tegular 9/16"
For all other specify length	277 - 277V	DA - Dali	+EB - emergency battery pack (for min 4' fixture)	TG15 - tegular 15/16"
#FT - nominal length in feet	UNV - 120V-277V	LA2 - Lutron Hi-Lume A - 2 wires 120V	+EM - emergency light circuit	TB9 - t-bar 9/16"
#IN - length in inches	347 - 347V	LA3 - Lutron Hi-Lume A - 3 wires/EcoS	+NL - night light circuit	TB15 - t-bar 15/16"
Continuous Run - for luminaires over 12'		LEH - Lutron EcoSystem H	+GTD - generator transfer device	ST - screw slot t-bar
Minimum Individual section 2'		LE5 - Lutron EcoSystem 5		DTL - drywall trimles
		OTH - other (consult factory)		

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white	FU - fuse
CF# - custom finish specify RAL#	FWC - flexible whip cable (6' std)
	CP - Chicago Plenum
	CU - custom

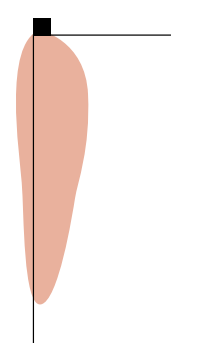
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LWERX-V3SKID-GRO-
LED-80-500-16FT-27 7-D-1-ST-W
Notes:

Type:**RCG16**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

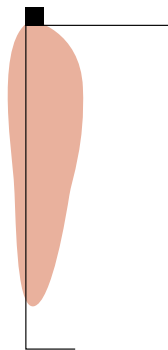
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

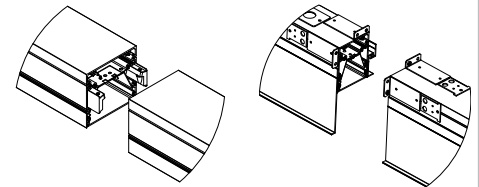
VSKI3D-GRO-LED-80-750-NA-40-20
Wall Luminaires: 20' run
Lumen Output: 750 lm/ft
Watts: 10.5 watts/ft
Ceiling Height: 10'
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LWERX-V3SKID-GRO-
LED-80-500-16FT-27 7-D-1-ST-W

Notes:

Type:**RCG16**

LAI16-104794

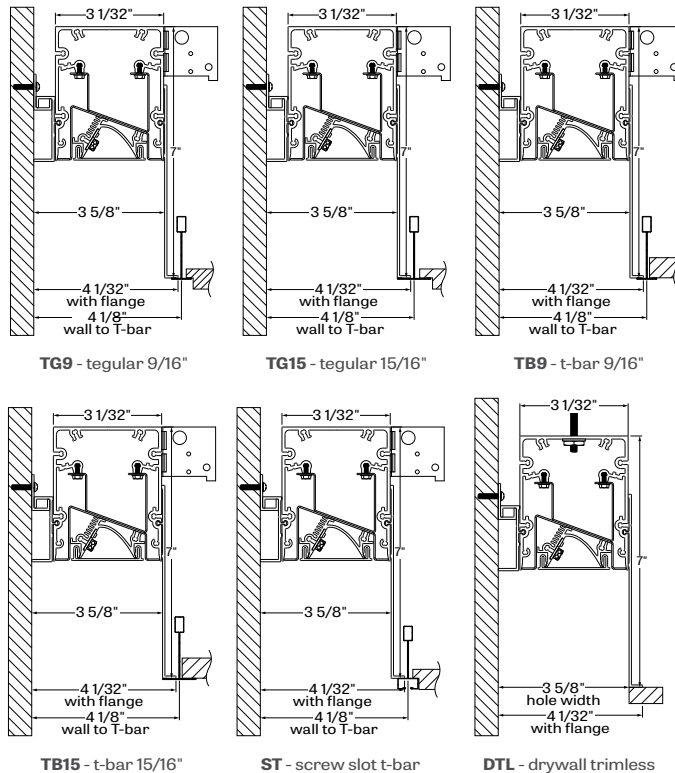
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

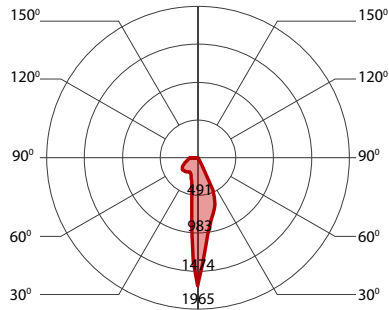
LWERX-V3SKID-GRO-
LED-80-500-16FT-27 7-D-1-ST-W-W
Notes:

Type:**RCG16**

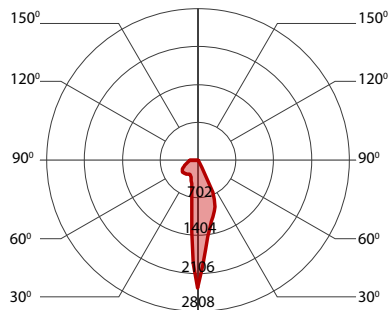
LAI16-104794

VIA SKIM 3 LED

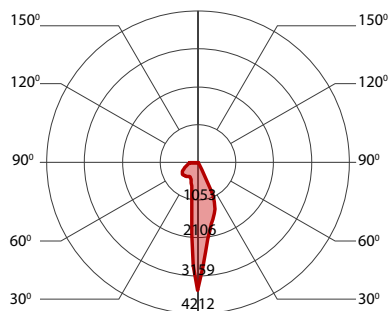
RECESSED

**350 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-20'6"-
277-D-1-ST-W

Notes:

Type:**RCG20-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

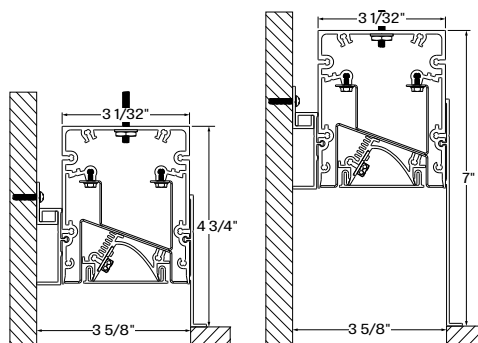
ORDER GUIDE**IC RATED**

LUMINAIRE ID	GRO	LED	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft 750 - high output 750lm/ft	35 - 3500k 40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit + EB - emergency battery pack (for min 4' fixture) + EM - emergency light circuit + NL - night light circuit + GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

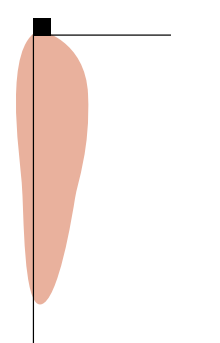
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-20'6"-
277-D-1-ST-W

Notes:

Type:**RCG20-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

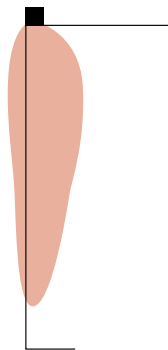
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

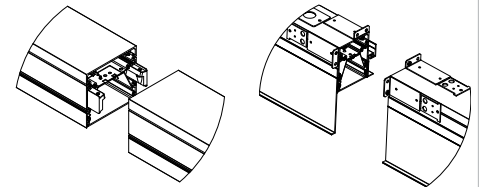
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-20'6"-
277-D-1-ST-W

Notes:

Type:**RCG20-6**

LAI16-104794

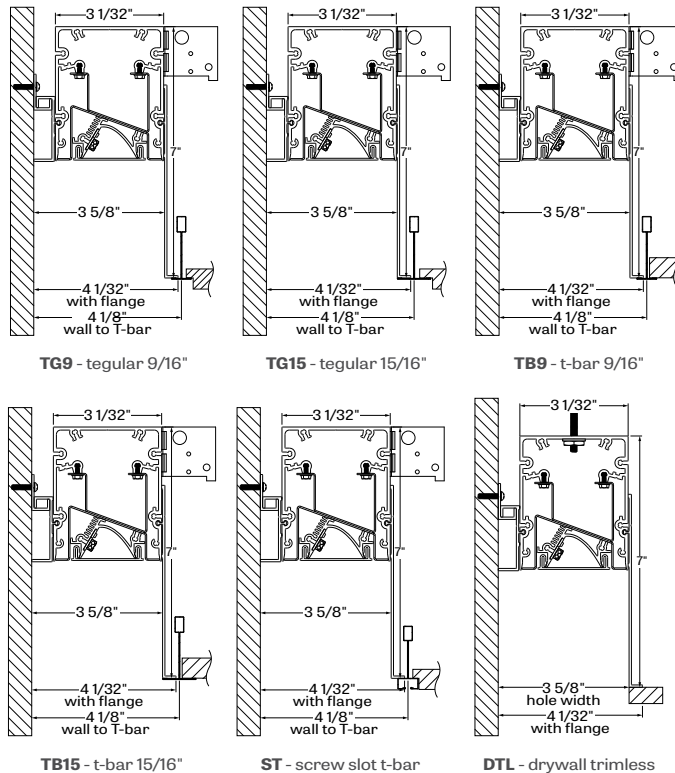
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-20'6"-
277-D-1-ST-W

Notes:

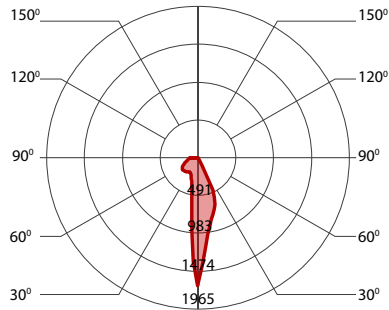
Type:**RCG20-6**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-31'-277
D-1-ST-W

Notes:

Type:**RCG31**

LAI16-104794

VIA SKIM 3 LED

RECESSED



LUMENWERX
WWW.LUMENWERX.COM



Via skim recessed deep

DESCRIPTION

Via Skim is designed to illuminate textured or polished vertical surfaces with a grazing light from the wall/ceiling intersection. Via Skim provides continuous illumination across the wall surface.

The intense light distribution is achieved with our Grazing Reflector Optic (GRO) oriented to project light with maximum luminous intensity at 5° from nadir.

The Via Skim is available with two depth options: shallow and deep. Total recessed depth ranges from 4 3/4" to 7".

PROJECT: _____

TYPE: _____

NOTES: _____

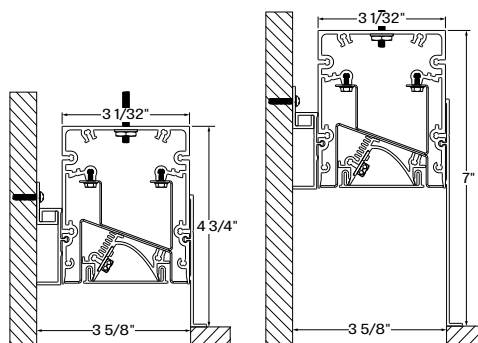
ORDER GUIDE**IC RATED**

LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
V3SKIS - via skim 3 recessed shallow	GRO - grazing reflector optic	LED - high performance LED	80 - 80CRI	350 - low output 350lm/ft	30 - 3000k
V3SKID - via skim 3 recessed deep			90 - 90CRI	500 - med output 500lm/ft	35 - 3500k
				750 - high output 750lm/ft	40 - 4000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING
Standard sections - 2', 3', 4', 5', 8' & 12' For all other specify length #FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12' Minimum Individual section 2'	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	D - dimming 0-10V DA - Dali LA2 - Lutron Hi-Lume A - 2 wires 120V LA3 - Lutron Hi-Lume A - 3 wires/EcoS LEH - Lutron EcoSystem H LE5 - Lutron EcoSystem 5 OTH - other (consult factory)	1 - 1 circuit +EB - emergency battery pack (for min 4' fixture) +EM - emergency light circuit +NL - night light circuit +GTD - generator transfer device	TG9 - tegular 9/16" TG15 - tegular 15/16" TB9 - t-bar 9/16" TB15 - t-bar 15/16" ST - screw slot t-bar DTL - drywall trimles

See page 2 for ordering code detailed information

FINISH	OPTIONS
W - matte white CF# - custom finish specify RAL#	FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom

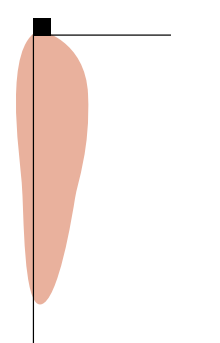
CROSS SECTION

V3SKIS - via skim shallow

V3SKID - via skim deep

OPTICS

GRO - Grazing Reflector Optic

LIGHT DISTRIBUTION

V3SKIS - via skim shallow

TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA-SKIM3-RECESSED-SPEC

Page: 1 / 4

October 31, 2016

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-31'-277
D-1-ST-W

Notes:

Type:**RCG31**

LAI16-104794

VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

OPTICS

GRAZING REFLECTOR OPTIC (GRO) - The intense light distribution is achieved with our Grazing Reflector Optic oriented to project light with maximum luminous intensity at 5° from nadir.

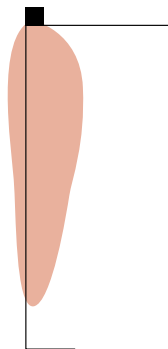
LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	1400	75
medium output	4000K	27	2000	74
high output	4000K	42	3000	71

LIGHT DISTRIBUTION

VSKI3D-GRO-LED-80-750-NA-40-20

Wall Luminaires: 20' run

Lumen Output: 750 lm/ft

Watts: 10.5 watts/ft

Ceiling Height: 10'

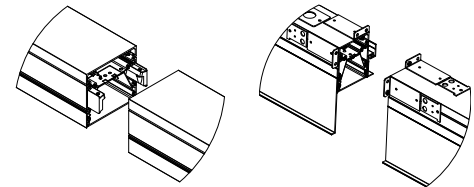
Efficacy: 71 lpw

Foot Candles on 20' wide wall, 10' ceiling

128	135	153	144	131	126	134	154	146	136
25.4	24.4	23.5	23.7	23.7	23.8	23.8	23.7	24.8	27.8
12.6	12.6	12.0	11.8	12.1	11.9	12.2	12.2	12.7	14.6
11.5	10.4	9.6	9.8	9.9	9.9	10.0	9.8	10.5	11.7
11.3	10.1	9.7	10.3	10.9	11.0	10.5	9.8	10.3	11.5

LUMINAIRE LENGTH

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Drywall joining

Grid joining

ELECTRICAL

Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-31'-277
D-1-ST-W

Notes:

Type:**RCG31**

LAI16-104794

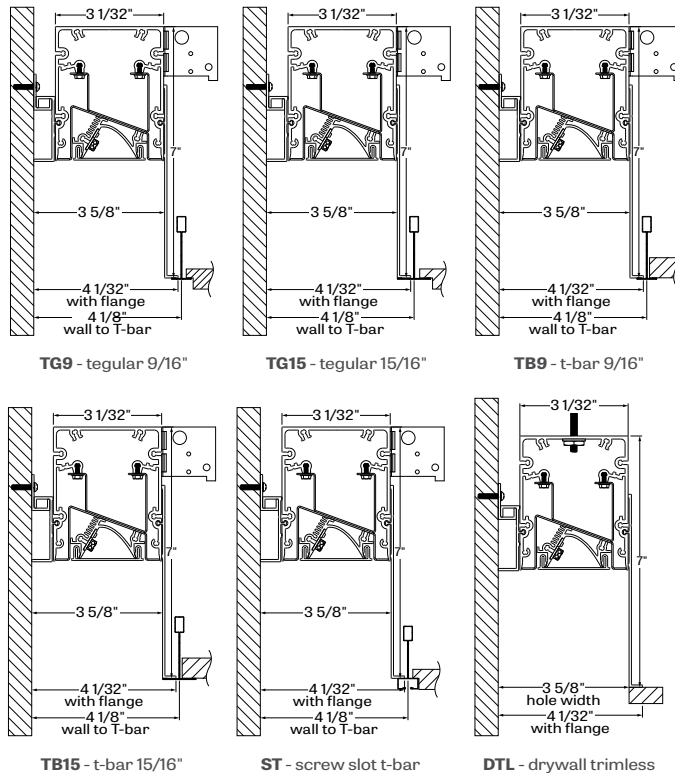
VIA SKIM 3 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling.
Trimless mounting detail is available for drywall ceilings.

**FINISH**

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or silver powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.070" nominal) up to 90% Recycled Content.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via Skim 3 4ft - 11.23lbs - 5.1kg

Via Skim 3 8ft - 22.47lbs - 10.2kg

Via Skim 3 12ft - 33.70lbs - 15.3kg

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

V3SKID-GRO-LED-80-500-30-31'-277
D-1-ST-W

Notes:

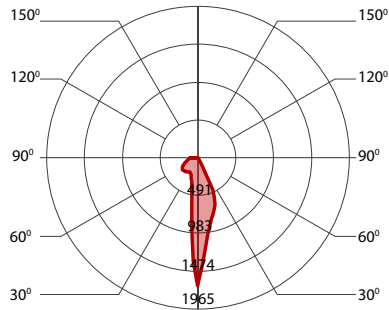
Type:**RCG31**

LAI16-104794

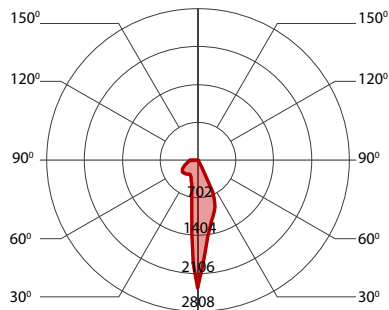
VIA SKIM 3 LED

RECESSED

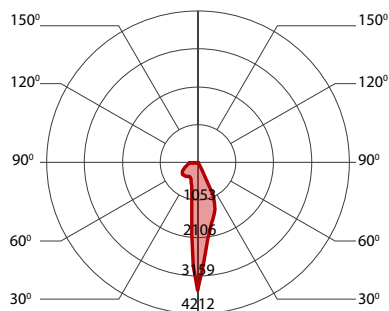
LUMENWERX
WWW.LUMENWERX.COM

350 LUMEN AT 80CRI - LOW OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	1400	71
low output	3500K	19	1400	73
low output	4000K	19	1400	75

500 LUMEN AT 80CRI - MEDIUM OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28.5	2000	70
medium output	3500K	28	2000	72
medium output	4000K	27	2000	74

750 LUMEN AT 80CRI - HIGH OUTPUT**PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	45	3000	67
high output	3500K	43.5	3000	69
high output	4000K	42	3000	71

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LD4A13D010TE ERM4A13830
4LM1H

Notes:

Type:**RD**

LAI16-104794

DESCRIPTION

4 inch LED recessed narrow, medium, or wide beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 900, 1300, 1800 and 2800 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K. Available with dim-to-warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space.

SPECIFICATION FEATURES**Lower Shielding Reflector**

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C

conductors and feed thru branch wiring.

Thermal

Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.

Driver

Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

Code Compliance

Thermally protected and cULus listed for protected wet locations. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

Warranty

5-year warranty.

Portfolio

Catalog #	Type
Project	
Comments	Date
Prepared by	



**LD4A09 LD4A13
LD4A18 LD4A28
4L**

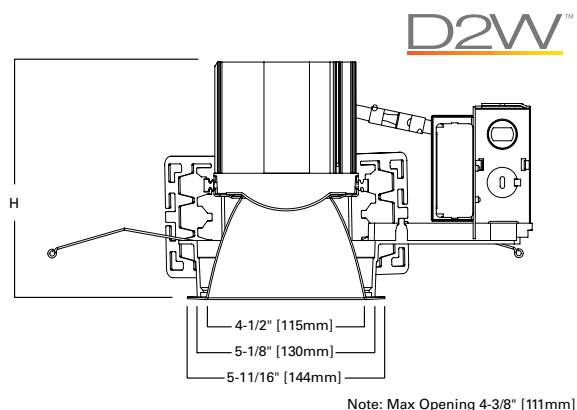
**900, 1300 Lumen LED
1800, 2800 Lumen LED**

4-Inch

Narrow, Medium, or Wide Beam

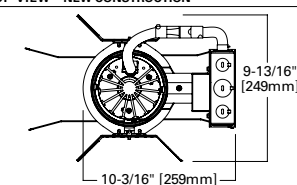
Downlight

New Construction

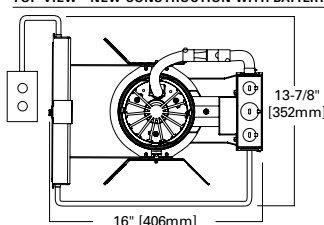


Distribution	Lumens	Height
Narrow	900/1300	5-7/16"
Medium	900/1300	5-11/16"
Wide	900/1300	5-3/16"
Narrow	1800/2800	7-7/16"
Medium	1800/2800	7-11/16"
Wide	1800/2800	7-3/16"

TOP VIEW - NEW CONSTRUCTION



TOP VIEW - NEW CONSTRUCTION WITH BATTERY



Refer to ENERGY STAR® Qualified Products List.



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LD4A13D010TE ERM4A13830

4LM1H

Notes:

Type:**RD**

LAI16-104794

LD4A09 LD4A13 LD4A18 LD4A28 4L

ORDERING INFORMATION**EXAMPLE: LD4A13D010TE ERM4A13835 4LM0LI=4"** LED Medium Beam Reflector Lens, 1300 lumen, 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing	Lumens ¹	Driver	Options ³	Power Module	Lumens	CRI	Color
LD4A=4" Aperture LD4ACP=4" Aperture, Chicago Plenum 09=900 Lumens 13=1300 Lumens 18=1800 Lumens 28=2800 Lumens	900, 1300, 1800 and 2800 Lumen D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=Fifth Light® (DALI) 0% Dimming DE010=0 to 100% Dimming, 120-277V 50/60Hz, 0-10V DL3=1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire DLT=Hi-Lume Forward Phase 2-wire Dimming 120V DMX=DMX 0% Dimming 900, 1300 and 1800 Lumen D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	EMBOD=7W Bodine® Emergency Module with Remote Test Switch IEMBOD=7W Bodine® Emergency Module with Integral Test Switch EM7=7W Emergency Module with Remote Test Switch⁴ EM14=14W Emergency Module with Remote Test Switch^{4,5} IEM7=7W Emergency Module with Integral Test Switch^{4,5,6} IEM14=14W Emergency Module with Integral Test Switch^{4,5,6}	ERN4A=4" Module for Narrow Beam Reflector ERM4A=4" Module for Medium Beam Reflector ERW4A=4" Module for Wide Beam Reflector 09=900 Lumen 13=1300 18=1800 Lumen 28=2800 Lumen	8=80 CRI 9=90 CRI	27=2700° K 30=3000° K 35=3500° K 40=4000° K 27CP=2700° K, Chicago Plenum 30CP=3000° K, Chicago plenum 35CP=3500° K, Chicago Plenum 40CP=4000° K, Chiago Plenum 30D2W= Dim to warm 3000° K to 1850° K (2000 lumen and below, 90 CRI)		

Reflector	Finish	Options	Accessories
4LN0=4" Narrow Reflector Lens Assembly, White Polymer Trim Ring 4LN1=4" Narrow Reflector , Self-flanged 4LM0=4" Medium Reflector Lens Assembly, White Polymer Trim Ring 4LM1=4" Medium Reflector , Self-flanged 4LM0E=4" Medium Reflector Lens Assembly, White Polymer Trim Ring for Integral Emergency Option ⁵ 4LM1E=4" Medium Reflector Self-flanged for Integral Emergency Option ⁵ 4LW0=4" Wide Reflector Lens Assembly, White Polymer Trim Ring 4LW1=4" Wide Reflector , Self-flanged	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze	B=Specular Black W=Gloss White 4LM0 Only BB=Black Baffle WB=White Baffle	Self-flanged Only WF= White Painted Flange HB26=C-channel Bar Hanger , 26" Long, Pair HB50=C-channel Bar Hanger , 50" Long, Pair RMB22=Wood Joist Bar Hanger , 22" Long, Pair H347= 347 to 120V Step Down Transformer, 75VA PORLWTPD1= LumaWatt Pro Wireless Sensor Kit (0-10V only) H347200=347 to 120V Step Down Transformer, 200VA TRM4P= Metal Trim Ring, White² TRM4MB= Metal Trim Ring, Black² TRR4= Rimless Trim Ring² LGSKT4IP66=IP66 Gasket Kit

Notes: 1 Nominal Lumens will vary depending on selected color, driver and reflector finish.

2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).

3 Not available with Chicago Plenum.

4 Not CSA approved.

5 For use in accessible ceilings only.

6 For use with medium beam accessible ceilings only.

ENERGY

ENERGY DATA			
Sound Rating: Class A standards			
(Values at non-dimming line voltage)			
Minimum Starting Temperature: -30°C (-22°F)			
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)			
Input Voltage: UNV (120V - 277V)			
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)			
Input Frequency: 50/60Hz			
2800 Lumen D010TE		1800 Lumen D010TE	
Input Power: 43.4W	THD: <17%	Input Power: 31.5W	THD: <20%
120V Input Current: .36A	277V Input Current: .16A	120V Input Current: .27A	277V Input Current: .06A
1300 Lumen D010TE		900 Lumen D010TE	
Input Power: 22.4W	THD: <20%	Input Power: 14.1W	THD: <20%
120V Input Current: .12A	277V Input Current: .09A	120V Input Current: .12A	277V Input Current: .06A

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
900/1000	0.486	0.4	0.848	0.182
1300/1500	0.717	1.58	0.531	1.24
1800/2000	0.832	0.405	1.25	0.788
2800/3000	1.09	0.3	1.23	0.294

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LD4A13D010TE ERM4A13830
4LM1H

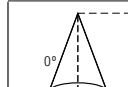
Notes:

Type:**RD**

LAI16-104794

LD4A09 LD4A13 LD4A18 LD4A28 4L

PHOTOMETRICS

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P133618					Degrees Vertical	Candela	Zone	Lumens	%Fixture	Average Candela Degrees	Average 0° Luminance
Platform	LD4A18D010TE					0	7058	0-30	1963	82.9	45	6933
Element	ERN4A18835 4LN1LI					5	6145	0-40	2313	97.7		
Lumens	2368					15	2836	0-60	2367	100		
Efficacy	72.2 Lm/W					25	1366	0-90	2368	100		
SC	0.4	35	564	90-180	0	0	75	0				
				D	FC	L	W					
		5.5'	233	2.2	2.2							
		7'	144	2.8	2.8							
		8'	110	3.2	3.2							
		9'	87	3.6	3.6							
				10'	71	4	4					
				12'	49	4.8	4.8					
								90	0			
								0-180	2368	100	85	0

1300 lumen multiplier .62. 2800 lumen multiplier 1.12.

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P133746							Degrees Vertical	Candela	Zone	Lumens	%Fixture	Average Candela Degrees	Average 0° Luminance
Platform	LD4A18D010TE							0	4483	0-30	2055	82.0	45	5954
Element	ERM4A18835 4LM1LI							5	4316	0-40	2449	97.7		
Lumens	2507							15	3105	0-60	2503	99.8		
Efficacy	76.4 Lm/W							25	1751	0-90	2507	100.0		
SC	0.7	35	594	90-180	0	0.0								
						45	43	0-180	2507	100.0	85	0		
		D	FC	L	W	65	0							
		5.5'	148	3.6	3.6	75	0							
		7'	92	4.6	4.6	85	0							
		8'	70	5.2	5.2	90	0							
		9'	55	5.8	5.8									
		10'	45	6.6	6.6									
		12'	31	7.8	7.8									

1300 lumen multiplier .62. 2800 lumen multiplier 1.17.

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P134426	Downlight						Degrees Vertical	Candela	Zone	Lumens	%Fixture	Average Candela Degrees	Average 0° Luminance
Platform	LD4A18D010TE							0	1618	0-30	1520	59.1	45	52140
Element	ERW4A18835 4LW1LI							5	1666	0-40	2205	85.7		
Lumens	2572							15	1946	0-60	2567	99.8		
Efficacy	78.4 Lm/W							25	1787	0-90	2572	100		
SC	1.3			D	FC	L	W	65	3	90-180	0	0	75	0
				5.5'	58	6.6	6.6	75	0	0-180	2572	100	85	0
				7'	36	8.4	8.4	85	0					
				8'	27	9.6	9.6	90	0					
				9'	22	10.8	10.8							
				10'	18	12	12							
				12'	12	14.4	14.4							

1300 lumen multiplier .64. 2800 lumen multiplier 1.19.

EM MULTIPLIER DATA

LUMENS	EM MULTIPLIER	
	7	14
900/1000	0.50	0.99
1300/1500	0.29	0.57
1800/2000	0.22	0.44
2800/3000	0.16	0.32

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794

BeveLED^{2.1}**PROJECT INFORMATION**

PROJECT _____

DATE _____

TYPE _____

ADJUSTABLE 3131**1" Regress**

BeveLED 2.1 Recessed Adjustable - BeveLED 2.1 is the most complete recessed LED downlight product family available from USAI Lighting, now with more BeveLED trim finishes, LED classic white color temperatures, innovative housing styles, and dimming driver options than before. With industry-leading performance, BeveLED 2.1 can provide a solution for any project - commercial, corporate and residential installations.

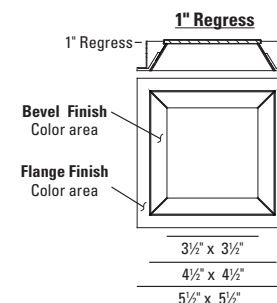
DELIVERED PERFORMANCE

BeveLED 2.1 ADJUSTABLE		9 Watts		12 Watts		16 Watts		24 Watts		33 Watts	
		80+ CRI	90+ HIGH CRI	80+ CRI	90+ HIGH CRI	80+ CRI	90+ HIGH CRI	80+ CRI	90+ HIGH CRI	80+ CRI	90+ HIGH CRI
Performance	Color Rendering Index	95	74	81	64	81	64	75	59	64	53
Data	Lumens per Watt	1150	900	1300	1025	1725	1350	2400	1875	3025	2350
	Source Lumens	850	675	975	750	1300	1025	1800	1400	2250	1750
Performance	10° Lumens per Watt										
Data	Source Lumens			1150	1000	1575	1300	2175	1800	2725	2275
	Delivered Lumens			1000	850	1350	1125	1875	1550	2350	1950
Color Consistency		2-Step MacAdam Ellipse									

Note: 25° data includes solite glass lens. 10° data does not include lens.

CCT MULTIPLIER	2200K	2700K		3000K		3500K	4000K
Color Rendering Index	80+ CRI	80+ CRI	90+ HIGH CRI	80+ CRI	90+ HIGH CRI	80+ CRI	80+ CRI
	Multiplier for Lumen Output	0.72	0.94	0.78	1.00	.78	1.00

90+ CRI is not available for 2200K, 3500K, or 4000K

**HOW TO SPECIFY**

Ordering Example: Specify trim code and housing code to order: Example : 3131W - B1 - S - 10 - LSTA4 - 8412 - C3 - 27KS - 25 - NC - 277V - DIML2 - CB27

TRIM ORDERING INFORMATION

TRIM	OPTION	BEVEL STYLE	LENS	FLANGE FINISH
3131	_____	_____	_____	_____
3131 Square Adjustable 1" Regress	W Wet location ¹	B1 1" Regress Bevel, Painted Die Cast Matches Flange Finish	N No Glass (use for 10°)	01 Clear Matte (AC Bevel only)
		AB1 1" Regress Bevel, Black Anodized	S Solite (use for 25°)	02 Black Anodized (AB Bevel only)
		AC1 1" Regress Bevel, Clear Matte Anodized	F Frosted	10 White
			C Clear	13 Statuary Bronze
				21 Black
				28 Metalized Grey
				RAL Custom Color (specify RAL #)

OPTICAL ACCESSORIES

(Order separately)

AL10E
AL15E
AL30E
AS61E
AL20F
AL30F
AL40F
AL55F
AL80F
AS61F

Clearly specify quantity in your order

HOUSING ORDERING INFORMATION

HOUSING CODE	WATTAGE	ENGINE CODE	COLOR	REFLECTOR	HOUSING TYPE	SELECT ONE VOLTAGE	DIMMING DRIVER OPTIONS	ACCESSORIES
LSTA4	_____	_____	_____	_____	_____	_____	_____	_____
LSTA4	8409 9W LED 8412 12W LED 8416 16V LED 8424 24W LED 8433 33W LED	C3	22KS 2200K, 80+ CRI 27KS 2700K, 80+ CRI 30KS 3000K, 80+ CRI 35KS 3500K, 80+ CRI 40KS 4000K, 80+ CRI 27KH 2700K, 90+ CRI 30KH 3000K, 90+ CRI	25 25° beam	NC New Construction, all in one CP Chicago Plenum IC Insulation-Contact Rated / Airtight	120V 277V	For use with 120V or 277V DIML2 0-10V dim, 10% (provided standard) DIML4 Lutron A 3-wire/ECO, 1% DIML4E Lutron 5 ECO, 5% ² DIML4H Lutron H ECO, 1% Fade ² DIML6A EdoLED 0-10V, 0.1%, logarithmic / Lutron controls DIML6B EdoLED 0-10V Linear, 0.1%, linear controls DIML6E EdoLED 0-10V, 1%, logarithmic / Lutron controls DIML6F EdoLED 0-10V, 1%, linear controls DIML7 EdoLED DALI, 0.1% DIML8 EdoLED DMX, 0.1% ³	CB27 27" C-Channel Bars CB52 52" C-Channel Bars EML Emergency battery ⁴ EMLW Emergency battery, wet location ⁴ ⁴ See emergency solutions chart for more details on EM options. Not available with 347V
	8412 12W LED 8416 16W LED 8424 24W LED 8433 33W LED	C2	27KS 2700K, 80+ CRI 30KS 3000K, 80+ CRI 35KS 3500K, 80+ CRI 40KS 4000K, 80+ CRI 27KH 2700K, 90+ CRI 30KH 3000K, 90+ CRI	10 10° beam	See emergency solutions chart for EM options with these housings	120V	For use with 120V only DIML3 Lutron A 2-wire, 1% 120V only DIML9 TRIAC 2-wire, 15% 120V only ^{2,3} DIML10 ELV 2-wire, 15% 120V only ^{2,3}	
	See performance chart for precise lumen information.		2 Step MacAdam ellipse is standard for all			347V	For use with 347V only DIML15 0-10V dim, 1% 347V only	

² N/A with 9W, ³ N/A with 33W

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Lighting

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

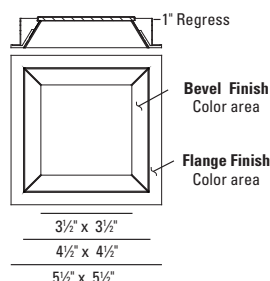
3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794

BeveLED^{2.1}

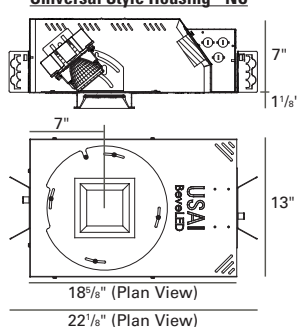
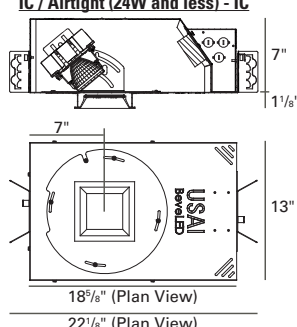
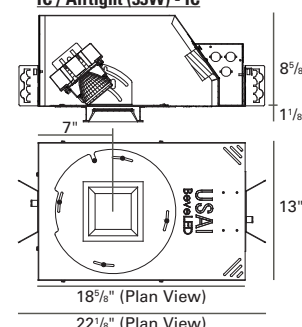
ADDITIONAL TRIM INFORMATION**1" Regress**

BeveLED 2.1 Optical Accessories Matrix		
if you want...	and you have...	
	10°	25°
15° beam	AL10E	N/A
20° beam	AL15E	N/A
25° beam	AL30E	N/A
35° beam	N/A	AL20F
40° beam	N/A	AL30F
45° beam	N/A	AL40F
55° beam	N/A	AL55F
60° beam	N/A	AL80F
20x60° beam	AS61E	N/A
40x60° beam	N/A	AS61F
	size E	size F

**3131 Emergency Solutions**

Housing	EM SERVICE	Integral Test Switch	Remote Test Switch	Inverter By Others
NC	Through aperture		X	
CP	N/A			X
IC	N/A			X

347V cannot be offered with EM

HOUSING INFORMATION**New Construction****Universal Style Housing - NC****Chicago Plenum (24W and less) - CP****IC / Airtight (24W and less) - IC****Chicago Plenum (33W) - CP****IC / Airtight (33W) - IC****SPECIFICATIONS**

TRIM: 4-1/2" square aperture with a 1" regressed bevel and 1/2" flange, retained by two mounting clips. Die cast aluminum bevel is self-flanged and is available in white, statuary bronze, black, and metalized grey finishes. Also available in black anodized or clear matte anodized bevel with self-finish or with contrasting painted flange. Custom color flanges available (provide RAL#).

TRIM LENS: 25° trim is shipped with integral solite lens. 10° does not come with a solite lens unless selected as an option. Frosted lens option available for both. 10° wet location is provided with a clear lens.

REFLECTOR: Interchangeable precision injection molded specular polycarbonate reflector optimized for 10° or 25° beam distribution. Note: 10° optic requires dedicated 10° light engine.

ADJUSTMENT: True hot aiming with center beam optics is adjustable, with a completely tool-less mechanism. 0°-40° lockable vertical tilt with 362° lockable rotation.

FIELD REPLACEABLE LIGHT ENGINE: Available in 5 lumen packages: 9W, 12W, 16W, 24W and 33W. Engine is field replaceable through the aperture without tools. See performance chart for precise lumen output information.

COLOR: BeveLED 2.1 is available in 5 color temperatures (2200K, 2700K, 3000K, 3500K, 4000K). All color options are tightly binned for fixture-to-fixture color consistency within a 2-Step MacAdam Ellipse. 80+ color rendering index provided standard. 90+ CRI available for 2700K and 3000K CCTs.

RATED LIFE: Based on IESNA LM80-2008 50,000 hours at 70% lumen maintenance (L70).

THERMAL MANAGEMENT: Proprietary high performance aluminum die cast heatsink for maximum LED life. Ambient temperatures at fixture location should not exceed 40°C during normal operation.

FIELD REPLACEABLE DRIVER: 0-10V, 100%-10% solid state electronic constant current driver with a high power factor provided standard and sources 2mA. Specify 120V or 277V. Driver complies with IEEE C62.41 surge protection.

DIMMING OPTIONS: Multiple dimming drivers available. See compatibility chart attached. Some on-time delay may be experienced depending on control system used. Note: DIML6A and DIML6E logarithmic control are intended for use with Lutron control systems; DIML6B and DIML6F linear control are intended for use with non-Lutron controls. DIML15 and DIML6 dimming drivers source 2mA.

EMERGENCY: Fixtures provided with a remote test switch are provided with a 24" lead length for location of the test switch. Fixtures that have no USAI EM option may be connected to an inverter (by others) for emergency lighting. See emergency solutions chart for more information on EM test switches and servicing.

MOUNTING: Butterfly brackets and adjustable nailer bars with integral nails provided. Nailer bars are extendible from 14" to 24" centers. C-channel bars are optionally available for acoustical ceiling applications.

MAXIMUM CEILING THICKNESS: As per drawings above.

ACCESSORY HOLDER: Snap in accessory holder shipped with fixture.

10° accepts "E" size lens, maximum 2.

25° accepts "F" size lens, maximum 2.

CEILING CUT OUT: 5-1/16" x 5-1/16"

HOUSING: All-Ways Square® (covered by US Pat. No: US 7,832,889) housing allows alignment of square aperture (up to 20° rotation) after housing installation and prior to finish ceiling installation. Fabricated of 20 ga. galvanized steel with thru wire J-box, 4 in 4 out at min. 90°C, #12 AWG thru branch circuit wiring. IC-rated housings for use with 9W, 12W, and 16W light engines only are rated for direct contact with spray foam insulation of R-42 per inch or less.

LISTINGS: Dry/Damp. Wet location option available with B1 trim only. NRTL/CSA-US tested to UL standards. IBEW union made. Energy Star Qualified under Luminaires Specification V2.0. Please see Energy Star website for exact model #s included in the listing. Please note that the following options are not Energy Star qualified: 22KS, 27KH, and 30KH light engines; B-13, B-21, and AB trim styles; Frosted lens and EM options. CEC/Title 24 Compliant up to 16W maximum. See CEC website for exact models included.

WARRANTY: 5 years

**NOTES:**

- Not for use in corrosive environment.
- Use of pressure washer voids warranty.

PHOTOMETRICS: Consult factory or website for IES files. Tested in accordance with IESNA LM79-2008.

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794

BeveLED_{2.1}**DELIVERED PERFORMANCE****3131 / 3431 16W 30KS 25°****Coefficients Of Utilization - Zonal Cavity Method**

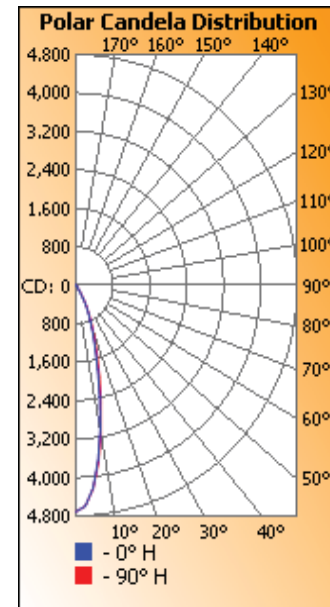
Effective Floor Cavity Reflectance: 20%												
RCC %:	80				70				50			
RW %:	70	50	30	0	70	50	30	0	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06
1	1.15	1.12	1.10	1.09	1.12	1.10	1.09	.96	1.06	1.05	1.04	1.03
2	1.11	1.07	1.04	1.01	1.08	1.05	1.02	.93	1.02	1.00	.98	.99
3	1.07	1.02	.98	.95	1.05	1.00	.97	.89	.98	.95	.92	.95
4	1.03	.97	.93	.90	1.01	.96	.92	.86	.94	.91	.88	.92
5	.99	.93	.89	.85	.98	.92	.88	.82	.90	.87	.84	.89
6	.96	.89	.85	.81	.95	.89	.84	.79	.87	.83	.81	.86
7	.93	.86	.81	.78	.92	.85	.81	.77	.84	.80	.78	.83
8	.90	.83	.78	.75	.89	.82	.78	.74	.81	.77	.75	.80
9	.87	.80	.75	.72	.86	.79	.75	.72	.79	.75	.72	.78
10	.85	.77	.73	.70	.84	.77	.73	.69	.76	.72	.70	.75

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1,185.7	92.3%
0-40	1,268.1	98.7%
0-60	1,282.9	99.9%
60-90	1.6	0.1%
70-100	0.2	0%
90-120	0	0%

Illuminance at a Distance		
Center Beam fc	Beam Width	
2.0R	1,181.6 fc	0.9 ft 0.9 ft
4.0R	295.4 fc	1.8 ft 1.9 ft
6.0R	131.3 fc	2.7 ft 2.8 ft
8.0R	73.8 fc	3.6 ft 3.7 ft
10.0R	47.3 fc	4.5 ft 4.7 ft
12.0R	32.8 fc	5.4 ft 5.6 ft
14.0R	24.1 fc	6.3 ft 6.5 ft
16.0R	18.5 fc	7.2 ft 7.5 ft

■ Vert. Spread: 25.2°
■ Horiz. Spread: 26.3°

**3131 / 3431 33W 30KS 25°****Coefficients Of Utilization - Zonal Cavity Method**

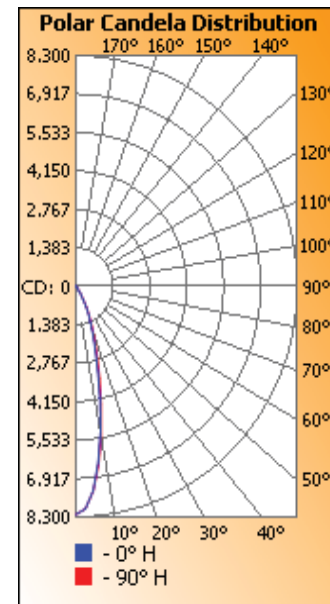
Effective Floor Cavity Reflectance: 20%												
RCC %:	80				70				50			
RW %:	70	50	30	0	70	50	30	0	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06
1	1.15	1.12	1.10	1.09	1.12	1.10	1.09	.96	1.06	1.05	1.04	1.03
2	1.11	1.07	1.04	1.01	1.08	1.05	1.02	.93	1.02	1.00	.98	.99
3	1.07	1.02	.98	.95	1.05	1.00	.97	.89	.98	.95	.92	.95
4	1.03	.97	.93	.90	1.01	.96	.92	.86	.94	.91	.88	.92
5	.99	.93	.89	.85	.98	.92	.88	.82	.90	.87	.84	.89
6	.96	.89	.85	.81	.95	.89	.84	.79	.87	.83	.81	.86
7	.93	.86	.81	.78	.92	.85	.81	.77	.84	.80	.78	.83
8	.90	.83	.78	.75	.89	.82	.78	.74	.81	.77	.75	.80
9	.87	.80	.75	.72	.86	.79	.75	.72	.79	.75	.72	.78
10	.85	.77	.73	.70	.84	.77	.73	.69	.76	.72	.70	.75

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	2,065.7	92.3%
0-40	2,209.1	98.7%
0-60	2,235.1	99.9%
60-90	2.8	0.1%
70-100	0.4	0%
90-120	0	0%

Illuminance at a Distance		
Center Beam fc	Beam Width	
2.0R	2,058.5 fc	0.9 ft 0.9 ft
4.0R	514.6 fc	1.8 ft 1.9 ft
6.0R	228.7 fc	2.7 ft 2.8 ft
8.0R	128.7 fc	3.6 ft 3.7 ft
10.0R	82.3 fc	4.5 ft 4.7 ft
12.0R	57.2 fc	5.4 ft 5.6 ft
14.0R	42.0 fc	6.3 ft 6.5 ft
16.0R	32.2 fc	7.2 ft 7.5 ft

■ Vert. Spread: 25.2°
■ Horiz. Spread: 26.3°



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794

BeveLED^{2.1}**DELIVERED PERFORMANCE****3131 / 3431 16W 30KS 10°****Coefficients Of Utilization - Zonal Cavity Method**

		Effective Floor Cavity Reflectance: 20%																				
RCC %:		80				70				50				30				10				0
RW %:		70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0			
RCR: 0		1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00			
1		1.15	1.14	1.12	1.10	1.13	1.11	1.10	.98	1.07	1.06	1.05	1.04	1.03	1.02	1.00	1.00	.99	.98			
2		1.12	1.09	1.06	1.04	1.10	1.07	1.05	.96	1.04	1.02	1.01	1.01	1.00	.99	.99	.98	.97	.95			
3		1.09	1.05	1.02	.99	1.07	1.04	1.01	.93	1.01	.99	.97	.99	.97	.96	.97	.95	.94	.93			
4		1.06	1.02	.98	.96	1.05	1.01	.98	.92	.99	.96	.94	.97	.95	.93	.95	.94	.92	.91			
5		1.04	.99	.95	.93	1.03	.98	.95	.90	.97	.94	.92	.95	.93	.91	.94	.92	.90	.89			
6		1.02	.96	.93	.90	1.01	.96	.92	.88	.95	.92	.89	.93	.91	.89	.92	.90	.88	.87			
7		1.00	.94	.91	.88	.99	.94	.90	.87	.93	.90	.88	.92	.89	.87	.91	.89	.87	.86			
8		.98	.92	.89	.86	.97	.92	.89	.85	.91	.88	.86	.90	.88	.86	.89	.87	.85	.85			
9		.96	.91	.87	.85	.95	.90	.87	.84	.89	.87	.85	.88	.86	.84	.88	.86	.84	.83			
10		.94	.89	.86	.84	.94	.89	.86	.83	.88	.85	.83	.87	.85	.83	.87	.85	.83	.82			

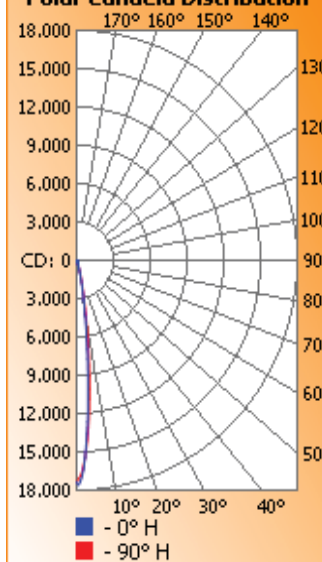
Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1,242.2	92.2%
0-40	1,291.6	95.9%
0-60	1,339.5	99.5%
60-90	7.1	0.5%
70-100	3.2	0.2%
90-120	0	0%

Illuminance at a Distance

	Center Beam fc	Beam Width
2.0R	4,334.6 fc	0.4 ft 0.5 ft
4.0R	1,083.7 fc	0.9 ft 1.0 ft
6.0R	481.6 fc	1.3 ft 1.4 ft
8.0R	270.9 fc	1.7 ft 1.9 ft
10.0R	173.4 fc	2.1 ft 2.4 ft
12.0R	120.4 fc	2.6 ft 2.9 ft
14.0R	88.5 fc	3.0 ft 3.3 ft
16.0R	67.7 fc	3.4 ft 3.8 ft

■ Vert. Spread: 12.2°
■ Horiz. Spread: 13.6°

Polar Candela Distribution**3131 / 3431 33W 30KS 10°****Coefficients Of Utilization - Zonal Cavity Method**

		Effective Floor Cavity Reflectance: 20%																				
RCC %:		80				70				50				30				10				0
RW %:		70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0			
RCR: 0		1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00			
1		1.15	1.14	1.12	1.10	1.13	1.11	1.10	.98	1.07	1.06	1.05	1.04	1.03	1.02	1.00	1.00	.99	.98			
2		1.12	1.09	1.06	1.04	1.10	1.07	1.05	.96	1.04	1.02	1.01	1.01	1.00	.99	.99	.98	.97	.95			
3		1.09	1.05	1.02	.99	1.07	1.04	1.01	.93	1.01	.99	.97	.99	.97	.96	.97	.95	.94	.93			
4		1.06	1.02	.98	.96	1.05	1.01	.98	.92	.99	.96	.94	.97	.95	.93	.95	.94	.92	.91			
5		1.04	.99	.95	.93	1.03	.98	.95	.90	.97	.94	.92	.95	.93	.91	.94	.92	.90	.89			
6		1.02	.96	.93	.90	1.01	.96	.92	.88	.95	.92	.89	.93	.91	.89	.92	.90	.88	.87			
7		1.00	.94	.91	.88	.99	.94	.90	.87	.93	.90	.88	.92	.89	.87	.91	.89	.87	.86			
8		.98	.92	.89	.86	.97	.92	.89	.85	.91	.88	.86	.90	.88	.86	.89	.87	.85	.85			
9		.96	.91	.87	.85	.95	.90	.87	.84	.89	.87	.85	.89	.86	.84	.88	.86	.84	.83			
10		.94	.89	.86	.84	.94	.89	.86	.83	.88	.85	.83	.87	.85	.83	.87	.85	.83	.82			

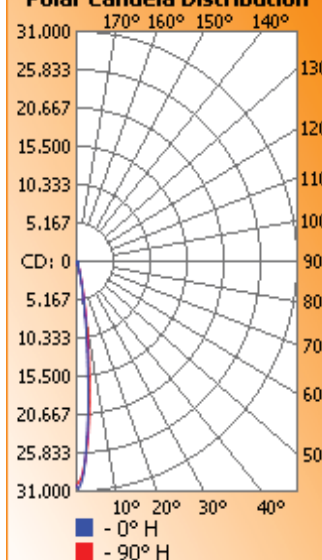
Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	2,164.2	92.2%
0-40	2,250.2	95.9%
0-60	2,333.6	99.5%
60-90	12.5	0.5%
70-100	5.5	0.2%
90-120	0	0%

Illuminance at a Distance

	Center Beam fc	Beam Width
2.0R	7,551.6 fc	0.4 ft 0.5 ft
4.0R	1,887.9 fc	0.9 ft 1.0 ft
6.0R	839.1 fc	1.3 ft 1.4 ft
8.0R	472.0 fc	1.7 ft 1.9 ft
10.0R	302.1 fc	2.1 ft 2.4 ft
12.0R	209.8 fc	2.6 ft 2.9 ft
14.0R	154.1 fc	3.0 ft 3.3 ft
16.0R	118.0 fc	3.4 ft 3.8 ft

■ Vert. Spread: 12.2°
■ Horiz. Spread: 13.6°

Polar Candela Distribution

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML2

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

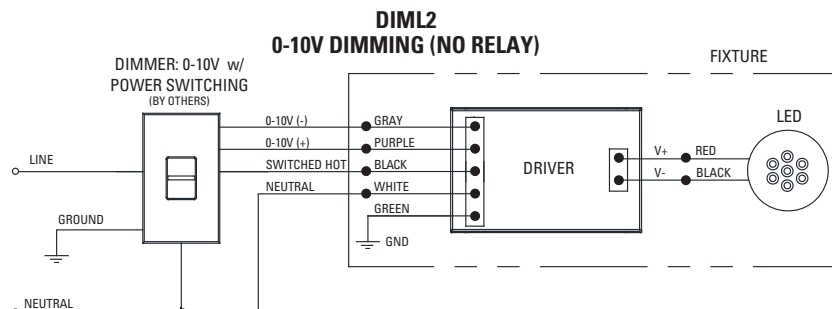
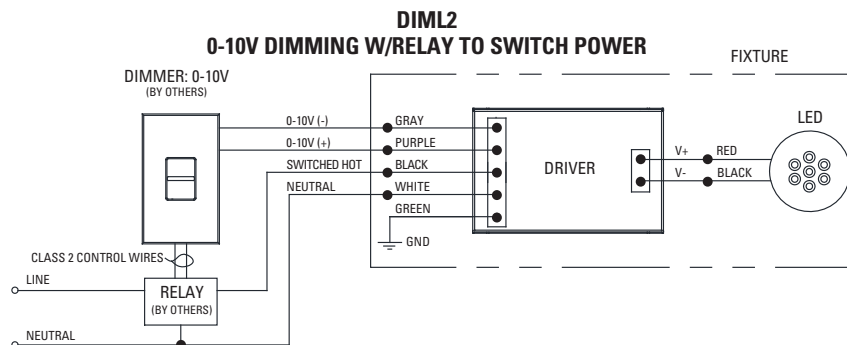
IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML2 LED: 0-10V Dimming Driver Wiring (Dims down to 10%)

DIML2 Dimmer Compatibility Chart				
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Dimmer*
120V / 277V				
Crestron	iLux dimmer expansion module	CLS-EXP-DIMFLV	100% - 10%	Use source current per fixture specification sheet to determine number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating.
Crestron	DIN Rail dimmer	DIN-4DIMFLV4	100% - 10%	
Crestron	DIN Rail analog output module	DIN-A08	100% - 10%	
Crestron	8 Channel dimmer module	GLX-DIMFLV8	100% - 10%	
Crestron	8 Channel dimmer module	GLXP-DIMFLV8	100% - 10%	
Leviton	IlumaTech dimmer	IP710-DLX	100% - 10%	
Lightolier (Philips)	Vega	V2000FAMU	100% - 10%	
Lutron	Diva	DVTV-XX	100% - 10%	

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML3

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

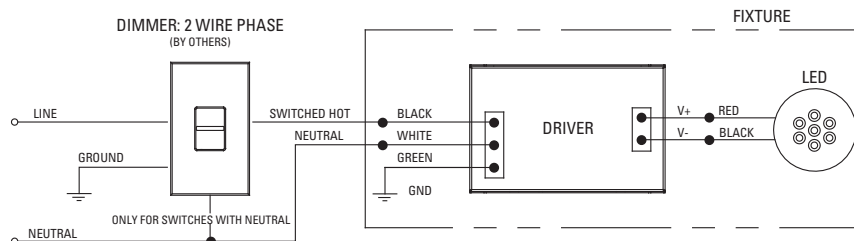
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML3 LED: Lutron Hi-Lume A-Series 2 Wire Fwd Phase (with neutral) / LED Dimming Driver Wiring (Dims down to 1%) 120V only.

DIML3 Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Dimmer*	
				Fixture Wattage	
120V Only				39W and Less	40W - 80W
ETC	Sensor+ Cabinet	ELV10	100% - 1%	1 - 26	1 - 13
ETC	Unison DRd Cabinet	ELV10	100% - 1%	1 - 26	1 - 13
Lutron	Maestro Wireless® 600W dimmer	MRF2-6ND-120-	100% - 1%	1 - 8	1 - 4
Lutron	Maestro Wireless® 1000W dimmer	MRF2-10ND-120-	100% - 1%	1 - 13	1 - 6
Lutron	HomeWorks® QS adaptive dimmer	HQRD-6NA-	100% - 1%	1 - 8	1 - 4
Lutron	HomeWorks® QS 600W dimmer	HQRD-6ND-	100% - 1%	1 - 8	1 - 4
Lutron	HomeWorks® QS 1000 W dimmer	HQRD-10ND-	100% - 1%	1 - 13	1 - 6
Lutron	Caseta Wireless® Pro 1000W dimmer	PD-10NXD-	100% - 1%	1 - 13	1 - 6
Lutron	Stanza® dimmer	SZ-6ND-	100% - 1%	1 - 8	1 - 4
Lutron	RadioRA® 2 adaptive dimmer	RRD-6NA-	100% - 1%	1 - 8	1 - 4
Lutron	RadioRA® 2 1000 W dimmer	RRD-10ND-	100% - 1%	1 - 6	1 - 3
Lutron	myRoom DIN power module	MQSE-4A1-D	100% - 1%	1 - 6	1 - 3
Lutron	HomeWorks® QS wallbox power module	HQRJ-WPM-6D-120-	100% - 1%	1 - 26	1 - 13
Lutron	Homeworks® DIN power module	LQSE-4A1-D	100% - 1%	1 - 6	1 - 3
Lutron	HomeWorks® wallbox power module	HWI-WPM-6D-120	100% - 1%	1 - 26	1 - 13
Lutron	GRAFIK Eye® QS control unit	QSGR-, QSGRJ-	100% - 1%	1 - 26	1 - 13
Lutron	GRAFIK Eye® 3000 control unit	GRX-3100-, GRX-3500-	100% - 1%	1 - 26	1 - 13
Lutron	RPM-4U module	HW-RPM-4U-120, LP-RPM-4U-120	100% - 1%	1 - 26	1 - 13
Lutron	RPM-4A module	HW-RPM-4A-120, LP-RPM-4A-120	100% - 1%	1 - 26	1 - 13
Lutron	GP dimming panels	Various	100% - 1%	1 - 26	1 - 13
Lutron	Ariadni CL 250WV dimmer	AYCL-253P-	100%-1%	1 - 8	1 - 4
Lutron	Diva CL 250WV dimmer	DVCL-253P-, DVSCCL-253P-	100%-1%	1 - 8	1 - 4
Lutron	Grafik T CL or RF CL dimmer	GT-250M-, GTJ-250M-	100%-1%	1 - 8	1 - 4
Lutron	Nova T CL 250WV dimmer	NTCL-250-	100%-1%	1 - 10	1 - 5

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIML3 2 WIRE PHASE DIMMING



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML4

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML4 LED: Lutron Hi-Lume A-Series LED Driver with 3-Wire FL Control / LED Dimming Driver Wiring (Dims down to 1%)

DIML4 3-Wire Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Control*	
				Fixture Wattage	
120V Only				39W and Less	40W - 80W
ETC	Sensor+ Cabinet	D20 Dimming module	100% - 1%	1-53	1-26
ETC	Unison DRd Cabinet	D20F Dimming module	100% - 1%	1-53	1-26
Lutron	Nova T	NTF-10-	100%-1%	1-41	1-20
Lutron	Nova T	NTF-103P-	100%-1%	1-20	1-10
Lutron	Nova	NF-10-	100%-1%	1-41	1-20
Lutron	Nova	NF-103P-	100%-1%	1-20	1-10
Lutron	Vareo	VF-10-	100%-1%	1-20	1-10
Lutron	Skylark	SF-10P-, SF-103P-	100%-1%	1-20	1-10
Lutron	Diva	DVF-103P-, DVSCF-103P-	100%-1%	1-20	1-10
Lutron	Ariadni	AYF-103P-	100%-1%	1-20	1-10
Lutron	Vierti	VTF-6A-	100%-1%	1-15	1-7
Lutron	Maestro	MAF-6AM-, MSCF-6AM-	100%-1%	1-15	1-7
Lutron	Maestro Wireless	MRF2-F6AN-DV-	100%-1%	1-15	1-7
Lutron	RadioRA 2	RRD-F6AN-DV-	100%-1%	1-15	1-7
Lutron	HomeWorks QS	HQRD-F6AN-DV	100%-1%	1-15	1-7
Lutron	Interfaces	PHPM-3F-120, PHPM-3F-DV	100%-1%	1-41	1-20
Lutron	GP Dimming Panels	Various	100%-1%	1-41	1-20
277V Only				40W and Less	41W - 80W
ETC	Sensor+ Cabinet	D20 Dimming module	100% - 1%	1-53	1-26
ETC	Unison DRd Cabinet	D20F Dimming module	100% - 1%	1-53	1-26
Lutron	Nova T	NTF-10-277-	100%-1%	1-44	1-22
Lutron	Nova T	NTF-103P-277-	100%-1%	1-33	1-16
Lutron	Nova	NF-10-277-	100%-1%	1-44	1-22
Lutron	Nova	NF-103P-277-	100%-1%	1-33	1-16
Lutron	Skylark	SF-12P-277-, SF-12P-277-3	100%-1%	1-33	1-16
Lutron	Diva	DVF-103P-277-, DVSCF-103P-277-	100%-1%	1-33	1-16
Lutron	Ariadni	AYF-103P-277-	100%-1%	1-44	1-22
Lutron	Vierti	VTF-6A-	100%-1%	1-33	1-16
Lutron	Maestro	MAF-6AM-277-, MSCF-6AM-277-	100%-1%	1-20	1-10
Lutron	Maestro Wireless	MRF2-F6AN-DV-	100%-1%	1-33	1-16
Lutron	RadioRA 2	RRD-F6AN-DV-	100%-1%	1-33	1-16
Lutron	HomeWorks QS	HQRD-F6AN-DV	100%-1%	1-33	1-16
Lutron	Interfaces	PHPM-3F-DV	100%-1%	1-88	1-44
Lutron	GP Dimming Panels	Various	100%-1%	1-88	1-44

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIML4 wiring diagrams continued on next page

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE

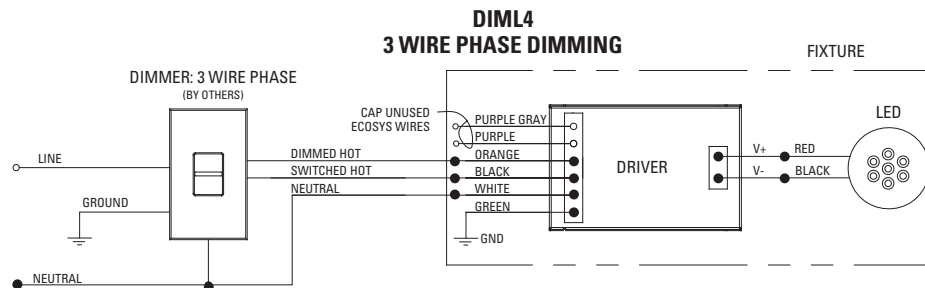
DIML4 Continued

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

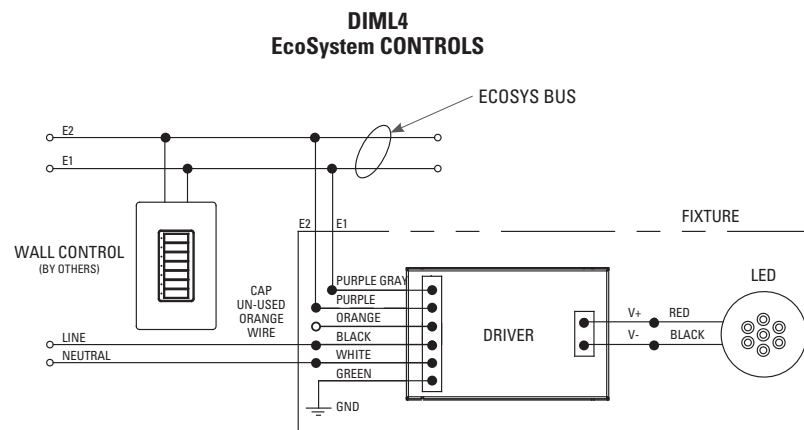
IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML4 LED: Lutron Hi-Lume A-Series LED Driver with 3-Wire FL Control / LED Dimming Driver Wiring (Dims down to 1%)**DIML4 LED: Lutron Hi-Lume A-Series LED Driver with EcoSystem Control / LED Dimming Driver Wiring (Dims down to 1%)**

DIML4 EcoSystem Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Control*	
				Fixture Wattage	
120V / 277V				39W and Less	40W - 80W
Lutron	PowPak dimming module	RMJ-ECO32-DV-B	100%–1%	1–32	1–16
Lutron	Energi Savr Node	QSN-1ECO-S, QSN-2ECO-S	100%–1%	1–64	1–32
Lutron	GRAFIK Eye QS (120V ONLY)	QSGRJ- E, QSGR- E	100%–1%	1–64	1–32
Lutron	Quantum	Various	100%–1%	1–64	1–32

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML4E and DIML4H

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML4E LED: Lutron 5 Series EcoSystem LED Driver / LED Dimming Driver Wiring (Dims down to 5%)

DIML4E EcoSystem Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Control* Fixture Wattage	
120V / 277V				39W and Less	40W - 80W
Lutron	PowPak dimming module	RMJ-EC032-DV-B	100%-5%	1-32	1-16
Lutron	Energi Savr Node	QSN-1ECO-S, QSN-2ECO-S	100%-5%	1-64	1-32
Lutron	GRAFIK Eye QS (120V ONLY)	QSGRJ- E, QSGR- E	100%-5%	1-64	1-32
Lutron	Quantum	Various	100%-5%	1-64	1-32

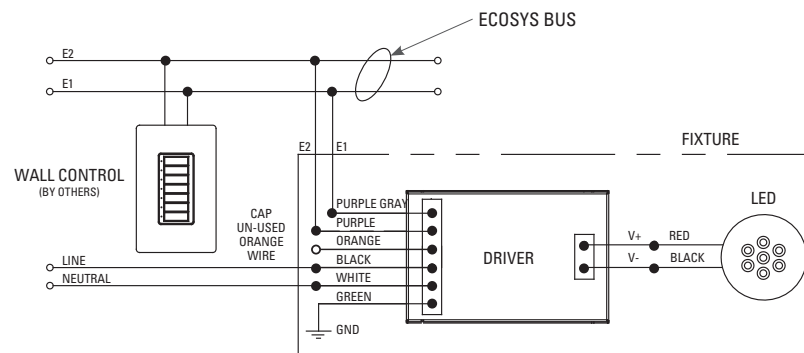
* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIML4H LED: Lutron H Series EcoSystem LED Driver with Fade to Black (dims down to 1%)

DIML4E EcoSystem Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Control* Fixture Wattage	
120V / 277V				39W and Less	40W - 80W
Lutron	PowPak dimming module	RMJ-EC032-DV-B	100%-1%	1-32	1-16
Lutron	Energi Savr Node	QSN-1ECO-S, QSN-2ECO-S	100%-1%	1-64	1-32
Lutron	GRAFIK Eye QS (120V ONLY)	QSGRJ- E, QSGR- E	100%-1%	1-64	1-32
Lutron	Quantum	Various	100%-1%	1-64	1-32

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIML4E and DIML4H EcoSystem CONTROLS



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE

DIML6A, 6E**DIML6B, 6F****IMPORTANT SAFETY INSTRUCTIONS****- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML6A and DIML6E LED Dimming Compatibility Table

DIML6A and DIML6E are linearly programmed dimming drivers for use with logarithmic-style dimming controls (e.g., Lutron and others listed in the table below)

DIML6A = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1%

DIML6E = EldoLED ECOdrive 0-10V control dims from 100% to 1%

DIML6A and DIML6E Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range		Qty Fixtures Per Dimmer*
120V & 277V			DIML6A	6E	Refer to manufacturer's dimmer load rating for maximum and minimum fixture quantities per dimmer.
Lutron	Diva	DVTV/NFTV/NTFTV with PP-20	99% - 0.1%	1%	
Lutron	Energi Savr Node	QSN-4T16-S	100% - 0.1%	1%	
Lutron	GP Dimming Panels	TVM2 Module	99% - 0.1%	1%	
Lutron	Interfaces	GRX-TVI w/ GRX3503	100% - 0.1%	1%	
Sensor Switch	nIO	nIO EZ	100% - 0.1%	1%	
enlighted	Control Unit	CU-3E-1R	100% - 0.1%	1%	Enlighted compatible.

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIML6B and DIML6F LED Dimming Compatibility Table

DIML6B and DIML6F are logarithmic-programmed dimming drivers for use with linear-style dimming controls (e.g., Crestron, non-Lutron and others listed in the table below)

DIML6B = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1%

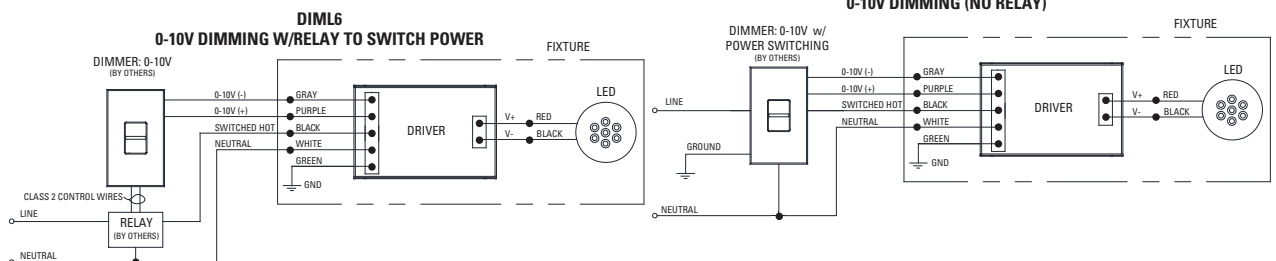
DIML6F = EldoLED ECOdrive 0-10V control dims from 100% to 1%

DIML6B and DIML6F Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range		Qty Fixtures Per Dimmer*
120V & 277V			DIML6B	6F	Refer to manufacturer's dimmer load rating for maximum and minimum fixture quantities per dimmer.
Bush-Jaeger	Electronic potentiometer	2112U-101	100% - 0.1%	1%	
Jung	Electronic potentiometer	240-10	100% - 0.1%	1%	
Leviton	IllumaTech dimmer	IP710-DLX	100% - 0.1%	1%	
Lightolier (Philips)	Momentum (120V ONLY)	ZP600FAM120	100% - 0.1%	1%	
Merten	Electronic potentiometer	5729	100% - 0.1%	1%	
Pass & Seymour	Titan	CD4FB-W	100% - 0.1%	1%	
Watt Stopper	Miro	DCLV1	100% - 0.1%	1%	
Synergy	Wallbox Dimmers	ISD BC	100% - 0.1%	1%	
ABB	i-bus	SD/S 2.16.1	100% - 0.1%	1%	
Crestron	Modules	GLX-DIMFLV8, GLXP-DIMFLV8	100% - 0.1%	1%	
Crestron	Green Light	GLPAC-DIMFLV4-, GLPAC-DIMFLV8-	100% - 0.1%	1%	
Crestron	Green Light Power Pack	GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM	100% - 0.1%	1%	
Crestron	DIN Rail Analog Output Module	DIN-A08	100% - 0.1%	1%	
Crestron	DIN Rail 0-10V Fluorescent Dimmer	DIN-4DIMFLV4	100% - 0.1%	1%	
Crestron	iLux 0-10V Dimmer Expansion Module	CLS-EXP-DIMFLV	100% - 0.1%	1%	
enlighted	Control Unit	CU-3E-1R	100% - 0.1%	1%	

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



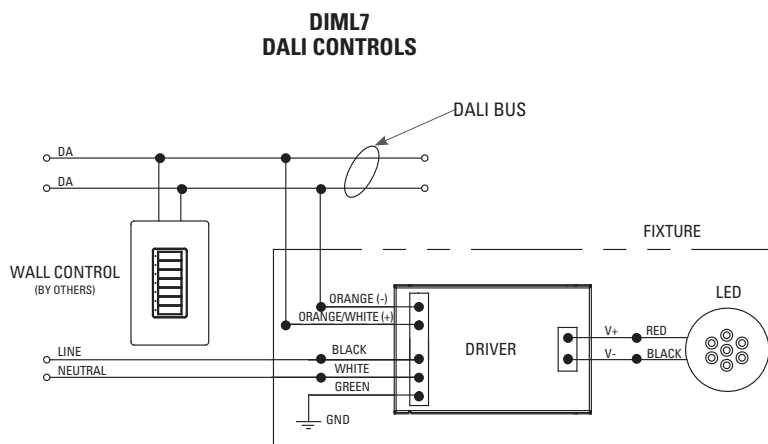
DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML7

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML7 LED: EldoLED DALI Dimming Driver Wiring (Dims down to 0.1%)

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML8

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

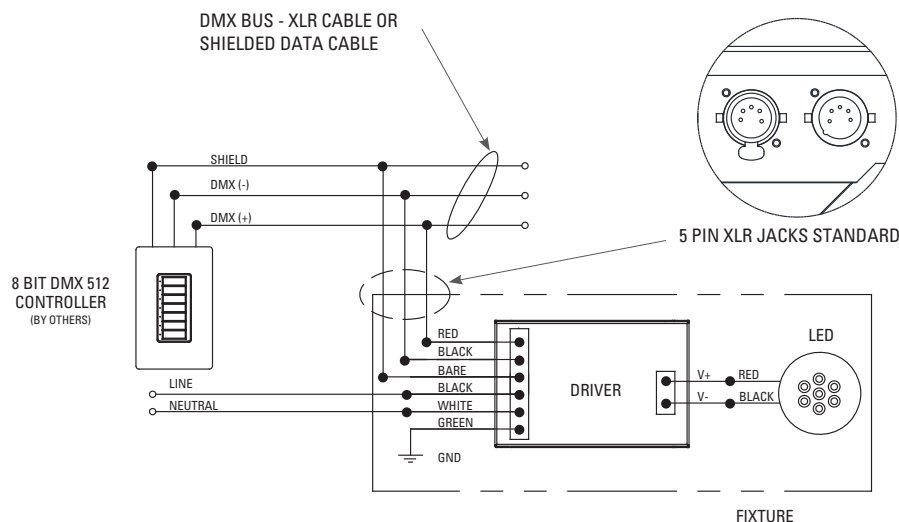
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML8 LED: EldoLED DMX Dimming Driver Wiring (Dims down to 0.1%)
**DMX BUS - XLR CABLE OR
SHIELDED DATA CABLE**

The data cable used must meet the following requirements:

- type: shielded, 2-conductor twisted pair
- maximum capacitance between conductors: 30 pF/ft
- maximum capacitance between conductor and shield: 55 pF/ft
- maximum resistance: 0.02 ohms/ft
- normal impedance: 100-140 ohms
- conductive core: 24 AWG is recommended

If 3-wire data cables are preferred, we suggest a Belden 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Do not use standard microphone cables: they cannot transmit DMX512 data reliably over long distances. NOTE: DMX link termination device (by others) should be used on last fixture in line on a circuit to avoid signal loss.



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML9

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

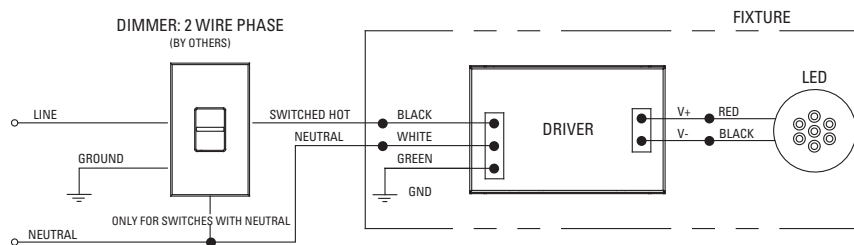
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML9 LED: TRIAC Forward Phase Dimming Driver Wiring (Dims down to 15%) 120V Only

DIML9 2 WIRE PHASE DIMMING



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML10

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

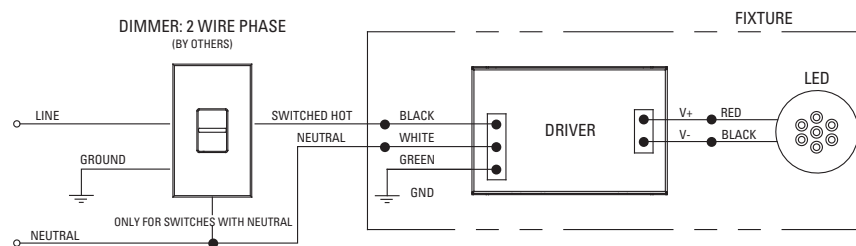
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML10 LED: ELV Reverse Phase Dimming Driver Wiring (Dims down to 15%) 120V Only

DIML10 2 WIRE PHASE DIMMING



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

3131-B1-S-10-AL20F-LSTA4-8416-
C330KH-25-NC-277-DIML2

Notes:

Type:**RE**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML15

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

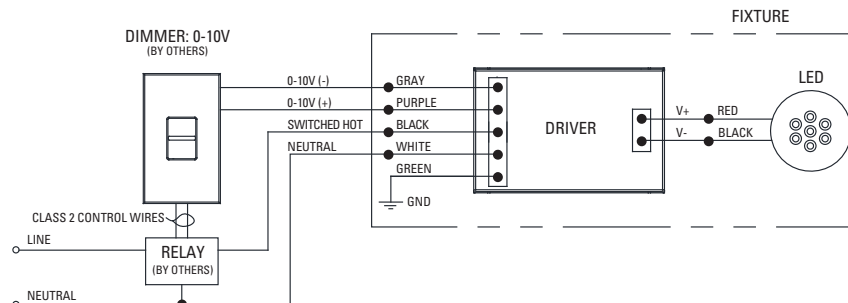
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML15 LED: 0-10V, 347V Dimming Driver Wiring (Dims down to 1%) 347V Only

DIML15 Dimmer Compatibility Chart			
Manufacturer	Product	Dimmed Light Output Range	Qty Fixtures Per Dimmer*
347			Use source current per fixture specification sheet to determine number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating.
Acuity	Synergy ISD-BC	100% - 1%	
Douglas Lighting	WPN-5721, WPN-5822	100% - 1%	
Hubbell	Light Hawk2 LHD-IRS3-N347-xx	100% - 1%	
Leviton	Illumatech IP710-DLZ with 347V relay	100% - 1%	
Leviton	Centura Fluorescent Control System	100% - 1%	
Lutron	Nova NDTV-* dimmer plus 347V relay	100% - 1%	
Lutron	Diva DDTV-* dimmer plus 347V relay	100% - 1%	

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIML15 0-10V DIMMING W/RELAY TO SWITCH POWER

**NOTE:**

If switched, non-dimming operation is desired, cap off purple and gray wires individually at installation. Do NOT cap purple and gray wires together.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NCSM1-277-DIML6A

Notes:

Type:**RED**

LAI16-104794

BeveLED[®] BASIC Trimless

**PROJECT INFORMATION**

PROJECT _____

DATE _____

TYPE _____

DOWNLIGHT 1011**1" REGRESS**

BeveLED Basic Recessed Downlight - Our narrow footprint housing provides an economical architectural solution while delivering high performance with LEDs.

DELIVERED PERFORMANCE

BeveLED Basic DOWNLIGHT	14 Watts	20 Watts
	80+	80+
Color Rendering Index	CRI	CRI
Lumens per Watt	68	60
Source Lumens	1100	1500
Delivered Lumens	1000	1300
Color Consistency	2-Step MacAdam Ellipse	

Performance based on 3000K

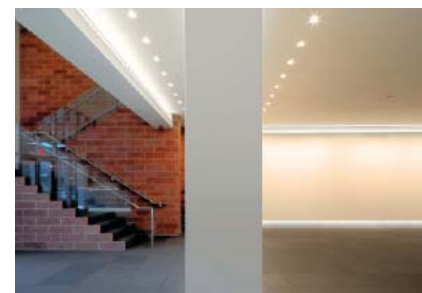
CCT MULTIPLIER	2700K	3000K	3500K
Color Rendering Index	80+ CRI	80+ CRI	80+ CRI
Multiplier for Lumen Output	1.00	1.00	1.08

HOW TO SPECIFY

Ordering Example: Specify trim code and housing code to order: Example : **1011W - B1 - S - 10 - LSLD4 - 9014 - M2 - 27KS - 30 - NCSM1 - 277V - DIML2 - CB27**

TRIM ORDERING INFORMATION

TRIM	OPTION	BEVEL STYLE	LENS	B1 BEVEL FINISH
1011	_____	_____	_____	_____
1011 Square Trimless Downlight 1" Regress	W Wet location ¹	B1 1" Regress Bevel, Die Cast	S Solite (provided standard)	10 White
	¹ Wet location, use with B1 trims only.		F Frosted	13 Statuary Bronze
		AB1 1" Regress Bevel, Black Anodized Finish	S Solite (provided standard)	21 Black
		AC1 1" Regress Bevel, Clear Matte Anodized Finish	F Frosted	28 Metalized Grey
				RAL Custom Color (specify RAL #)
				(Leave blank for AB1 and AC1 Bevel Styles)

**HOUSING ORDERING INFORMATION**

HOUSING CODE	WATTAGE	ENGINE CODE	COLOR	REFLECTOR	HOUSING TYPE	SELECT ONE VOLTAGE	DIMMING DRIVER OPTIONS	ACCESSORIES
LSLD4	_____	M2	_____	_____	_____	_____	_____	_____
LSLD4	9014 14W LED, 1000 lumens	M2	27KS 2700K, 80+ CRI	30 30° beam	NCSM1 New Construction 5/8" - 1-1/4" Ceiling Thickness	120V	For use with 120V or 277V DIML2 0-10V dim, 10% (provided standard)	CB27 27" C-Channel Bars
	9020 20W LED, 1300 lumens		30KS 3000K, 80+ CRI	50 50° beam	NCSM2 New Construction 1-1/4" - 2-1/4" Ceiling Thickness	277V	DIML4 Lutron A 3-wire/ECO, 1% DIML6A EldoLED 0-10V, 0.1%, logarithmic / Lutron controls	CB52 52" C-Channel Bars
			35KS 3500K, 80+ CRI	80 80° beam	IC Insulation-Contact Rated / Airtight ²		DIML6B EldoLED 0-10V Linear, 0.1%, linear controls	EML Emergency battery ³
					CP Chicago Plenum ²		DIML6E EldoLED 0-10V, 1%, logarithmic/Lutron controls	EMLW Emergency battery, wet location ³
							DIML6F EldoLED 0-10V, 1%, linear controls	MLXX - Millwork Adapter ⁴
							DIML7 EldoLED DALI, 0.1%	³ NCSM housings require above ceiling access. Not for use with IC or CP housings.
							For use with 120V only DIML3 Lutron A 2-wire, 1% 120V only	⁴ N/A with NCSM1 housing
							DIML9 TRIAC 2-wire, 15% 120V only	
							DIML19 Phase 2-wire dimming, 1% 120V only	

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NCM1-277-DIML6A

Notes:

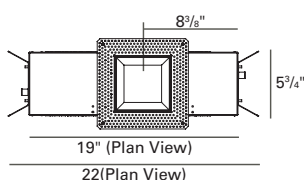
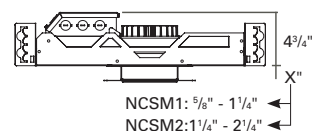
Type:**RED**

LAI16-104794

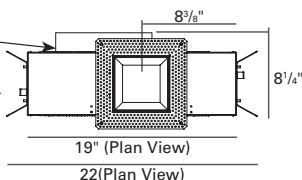
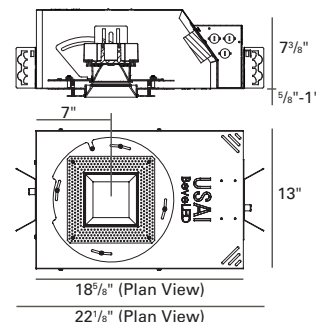
BeveLED[®] BASIC Trimless



DOWNLIGHT

1011**HOUSING INFORMATION****New Construction Narrow Width - NCSM**

Shown
with
EM option

**IC / Airtight - IC
Chicago Plenum - CP****SPECIFICATIONS**

TRIM: 4-1/2" square aperture with a 1" regressed bevel, retained by four mounting clips. Die cast aluminum bevel is available in white, statuary bronze, black, and metalized grey finishes. Also available in black anodized or clear matte anodized bevel. Custom color available (provide RAL#).

TRIM LENS: Trim is shipped with integral solite lens standard; frosted lens available as an option.

REFLECTOR: Interchangeable precision injection molded specular polycarbonate reflector optimized for 30°, 50° or 80° beam distribution.

FIELD REPLACEABLE LIGHT ENGINE: Available in 2 lumen packages: 14W (1000 delivered lumens) and 20W (1300 delivered lumens). Engine is field replaceable through the aperture without tools.

COLOR: BeveLED is available in 3 color temperatures (2700K, 3000K, 3500K). All color options are tightly binned for fixture-to-fixture color consistency within a 2-Step MacAdam Ellipse. 80+ color rendering index provided standard.

RATED LIFE: Based on IESNA LM80-2008 50,000 hours at 70% lumen maintenance (L70).

THERMAL MANAGEMENT: Proprietary high performance aluminum die cast heatsink for maximum LED life. Ambient temperatures at fixture location should not exceed 40°C during normal operation.

FIELD REPLACEABLE DRIVER: 0-10V, 100%-10% solid state electronic constant current driver with a high power factor provided standard and sources 2mA. Specify 120V or 277V. Driver complies with IEEE C62.41 surge protection.

DIMMING OPTIONS: Multiple dimming drivers available. See compatibility chart attached. Some on-time delay may be experienced depending on control system used. Note: DIML6A and DIML6E logarithmic control are intended for use with Lutron control systems; DIML6B and DIML6F linear control are intended for use with non-Lutron controls. DIML6 drivers source 2mA.

EMERGENCY: Emergency lighting battery pack is provided with remote test switch and require above ceiling access for service. EM option is not available with IC or CP housings.

MOUNTING: Butterfly brackets and adjustable nailer bars with integral nails provided. Nailer bars are extendible from 14" to 24" centers.

HOUSING: Fabricated of 20 ga. galvanized steel with thru wire J-box, 4 in 4 out at min. 90°C, #12 AWG thru branch circuit wiring. IC rated housing is rated for direct contact with insulation. All-Ways Square® (covered by US Pat. No: US 7,832,889) housing allows alignment of square aperture (up to 20° rotation) after housing installation and prior to finish ceiling installation.

MAXIMUM CEILING THICKNESS: As per drawings above. ML option is for 1" max thickness wood with IC housing and for 2-1/4" max thickness wood with NCSM2 housing. Millwork option is not available with NCSM1 housing.

CEILING CUT OUT: 5-1/16" x 5-1/16"
Millwork: 4-13/16" x 4-13/16"

LISTINGS: Dry/Damp, Wet location option available with B1 trim only. Millwork Dry/Damp only. NRTL/CSA-US tested to UL standards. IBEW union made. Energy Star Qualified under Luminaires Specification V2.0. Please see Energy Star website for exact model #s included in the listing. Please note that only B1-S-10 trims, 30° and 50° optics, and DIML2 dimming drivers are Energy Star Qualified.

WARRANTY: 5 years

**NOTES:**

- Not for use in corrosive environment.
- Use of pressure washer voids warranty.
- Trimless for drywall installation only.

PHOTOMETRICS: Consult factory or website for IES files. Tested in accordance with IESNA LM79-2008.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NCSM1-277-DIML6A

Notes:

Type:**RED**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML2

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

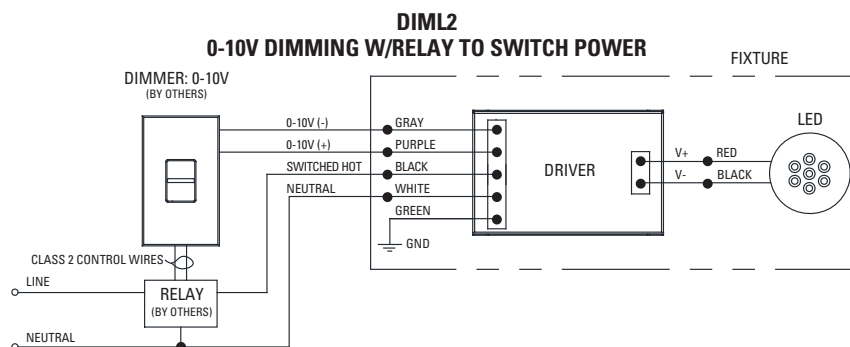
IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

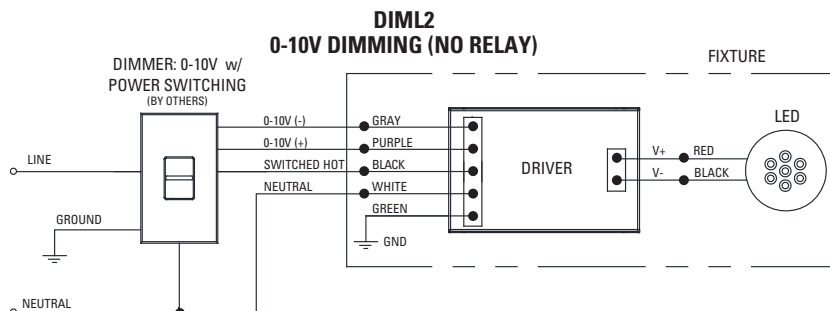
DIML2 LED: 0-10V Dimming Driver Wiring (Dims down to 10%)

DIML2 Dimmer Compatibility Chart				
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Dimmer*
120V / 277V				
Crestron	iLux dimmer expansion module	CLS-EXP-DIMFLV	100% - 10%	Use source current per fixture specification sheet to determine number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating.
Crestron	DIN Rail dimmer	DIN-4DIMFLV4	100% - 10%	
Crestron	DIN Rail analog output module	DIN-A08	100% - 10%	
Crestron	8 Channel dimmer module	GLX-DIMFLV8	100% - 10%	
Crestron	8 Channel dimmer module	GLXP-DIMFLV8	100% - 10%	
Leviton	IllumaTech dimmer	IP710-DLX	100% - 10%	
Lightolier (Philips)	Vega	V2000FAMU	100% - 10%	
Lutron	Diva	DVTV-XX	100% - 10%	

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

**NOTE:**

If switched, non-dimming operation is desired, cap off purple and gray wires individually at installation. Do NOT cap purple and gray wires together.

**NOTE:**

If switched, non-dimming operation is desired, cap off purple and gray wires individually at installation. Do NOT cap purple and gray wires together.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NC5M1-277-DIML6A

Notes:

Type:**RED**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML3

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

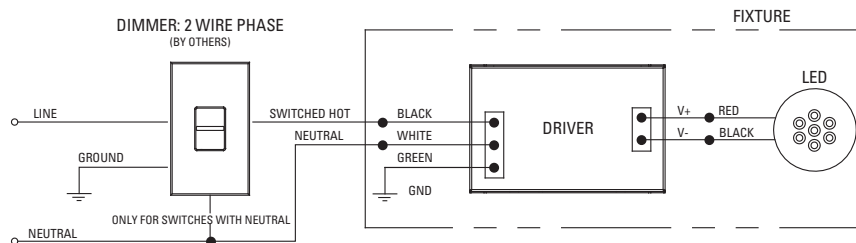
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML3 LED: Lutron Hi-Lume A-Series 2 Wire Fwd Phase (with neutral) / LED Dimming Driver Wiring (Dims down to 1%) 120V only.

DIML3 Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Dimmer*	
				Fixture Wattage	
120V Only				39W and Less	40W - 80W
ETC	Sensor+ Cabinet	ELV10	100% - 1%	1 – 26	1 – 13
ETC	Unison DRd Cabinet	ELV10	100% - 1%	1 – 26	1 – 13
Lutron	Maestro Wireless® 600W dimmer	MRF2-6ND-120-	100% - 1%	1 – 8	1 – 4
Lutron	Maestro Wireless® 1000W dimmer	MRF2-10ND-120-	100% - 1%	1 – 13	1 – 6
Lutron	HomeWorks® QS adaptive dimmer	HQRD-6NA-	100% - 1%	1 – 8	1 – 4
Lutron	HomeWorks® QS 600W dimmer	HQRD-6ND-	100% - 1%	1 – 8	1 – 4
Lutron	HomeWorks® QS 1000 W dimmer	HQRD-10ND-	100% - 1%	1 – 13	1 – 6
Lutron	Caseta Wireless® Pro 1000W dimmer	PD-10NXD-	100% - 1%	1 – 13	1 – 6
Lutron	Stanza® dimmer	SZ-6ND-	100% - 1%	1 – 8	1 – 4
Lutron	RadioRA® 2 adaptive dimmer	RRD-6NA-	100% - 1%	1 – 8	1 – 4
Lutron	RadioRA® 2 1000 W dimmer	RRD-10ND-	100% - 1%	1 – 6	1 – 3
Lutron	myRoom DIN power module	MQSE-4A1-D	100% - 1%	1 – 6	1 – 3
Lutron	HomeWorks® QS wallbox power module	HQRJ-WPM-6D-120-	100% - 1%	1 – 26	1 – 13
Lutron	Homeworks® DIN power module	LQSE-4A1-D	100% - 1%	1 – 6	1 – 3
Lutron	HomeWorks® wallbox power module	HWI-WPM-6D-120	100% - 1%	1 – 26	1 – 13
Lutron	GRAFIK Eye® QS control unit	QSGR-, QSGRJ-	100% - 1%	1 – 26	1 – 13
Lutron	GRAFIK Eye® 3000 control unit	GRX-3100-, GRX-3500-	100% - 1%	1 – 26	1 – 13
Lutron	RPM-4U module	HW-RPM-4U-120, LP-RPM-4U-120	100% - 1%	1 – 26	1 – 13
Lutron	RPM-4A module	HW-RPM-4A-120, LP-RPM-4A-120	100% - 1%	1 – 26	1 – 13
Lutron	GP dimming panels	Various	100% - 1%	1 – 26	1 – 13
Lutron	Ariadni CL 250W dimmer	AYCL-253P-	100%-1%	1 – 8	1 – 4
Lutron	Diva CL 250W dimmer	DVCL-253P-, DVSCCL-253P-	100%-1%	1 – 8	1 – 4
Lutron	Grafik T CL or RF CL dimmer	GT-250M-, GTJ-250M-	100%-1%	1 – 8	1 – 4
Lutron	Nova T CL 250W dimmer	NTCL-250-	100%-1%	1 – 10	1 – 5

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIML3 2 WIRE PHASE DIMMING



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NCMS1-277-DIML6A

Notes:

Type:**RED**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML4

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML4 LED: Lutron Hi-Lume A-Series LED Driver with 3-Wire FL Control / LED Dimming Driver Wiring (Dims down to 1%)

DIML4 3-Wire Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Control*	
				Fixture Wattage	
120V Only				39W and Less	40W - 80W
ETC	Sensor+ Cabinet	D20 Dimming module	100% - 1%	1-53	1-26
ETC	Unison DRd Cabinet	D20F Dimming module	100% - 1%	1-53	1-26
Lutron	Nova T	NTF-10-	100%-1%	1-41	1-20
Lutron	Nova T	NTF-103P-	100%-1%	1-20	1-10
Lutron	Nova	NF-10-	100%-1%	1-41	1-20
Lutron	Nova	NF-103P-	100%-1%	1-20	1-10
Lutron	Vareo	VF-10-	100%-1%	1-20	1-10
Lutron	Skylark	SF-10P-, SF-103P-	100%-1%	1-20	1-10
Lutron	Diva	DVF-103P-, DVSCF-103P-	100%-1%	1-20	1-10
Lutron	Ariadni	AYF-103P-	100%-1%	1-20	1-10
Lutron	Vierti	VTF-6A-	100%-1%	1-15	1-7
Lutron	Maestro	MAF-6AM-, MSCF-6AM-	100%-1%	1-15	1-7
Lutron	Maestro Wireless	MRF2-F6AN-DV-	100%-1%	1-15	1-7
Lutron	RadioRA 2	RRD-F6AN-DV-	100%-1%	1-15	1-7
Lutron	HomeWorks QS	HQRD-F6AN-DV	100%-1%	1-15	1-7
Lutron	Interfaces	PHPM-3F-120, PHPM-3F-DV	100%-1%	1-41	1-20
Lutron	GP Dimming Panels	Various	100%-1%	1-41	1-20
277V Only				40W and Less	41W - 80W
ETC	Sensor+ Cabinet	D20 Dimming module	100% - 1%	1-53	1-26
ETC	Unison DRd Cabinet	D20F Dimming module	100% - 1%	1-53	1-26
Lutron	Nova T	NTF-10-277-	100%-1%	1-44	1-22
Lutron	Nova T	NTF-103P-277-	100%-1%	1-33	1-16
Lutron	Nova	NF-10-277-	100%-1%	1-44	1-22
Lutron	Nova	NF-103P-277-	100%-1%	1-33	1-16
Lutron	Skylark	SF-12P-277-, SF-12P-277-3	100%-1%	1-33	1-16
Lutron	Diva	DVF-103P-277-, DVSCF-103P-277-	100%-1%	1-33	1-16
Lutron	Ariadni	AYF-103P-277-	100%-1%	1-44	1-22
Lutron	Vierti	VTF-6A-	100%-1%	1-33	1-16
Lutron	Maestro	MAF-6AM-277-, MSCF-6AM-277-	100%-1%	1-20	1-10
Lutron	Maestro Wireless	MRF2-F6AN-DV-	100%-1%	1-33	1-16
Lutron	RadioRA 2	RRD-F6AN-DV-	100%-1%	1-33	1-16
Lutron	HomeWorks QS	HQRD-F6AN-DV	100%-1%	1-33	1-16
Lutron	Interfaces	PHPM-3F-DV	100%-1%	1-88	1-44
Lutron	GP Dimming Panels	Various	100%-1%	1-88	1-44

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIML4 wiring diagrams continued on next page

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NC5M1-277-DIML6A

Notes:

Type:**RED**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE

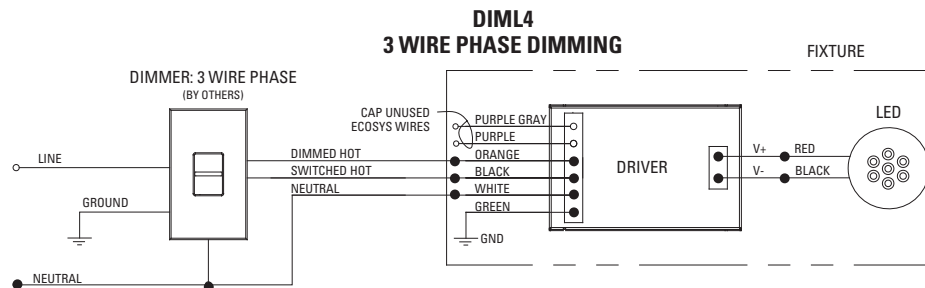
DIML4 Continued

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

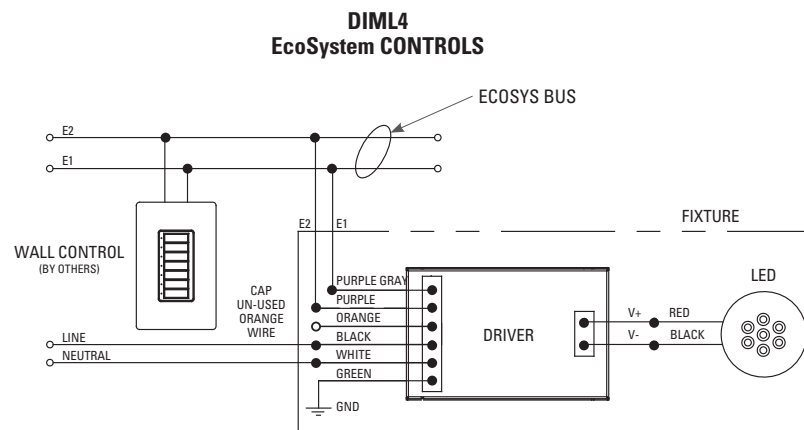
IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML4 LED: Lutron Hi-Lume A-Series LED Driver with 3-Wire FL Control / LED Dimming Driver Wiring (Dims down to 1%)**DIML4 LED: Lutron Hi-Lume A-Series LED Driver with EcoSystem Control / LED Dimming Driver Wiring (Dims down to 1%)**

DIML4 EcoSystem Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Control*	
				Fixture Wattage	
120V / 277V			39W and Less	40W - 80W	
Lutron	PowPak dimming module	RMJ-ECO32-DV-B	100%—1%	1—32	1—16
Lutron	Energi Savr Node	QSN-1ECO-S, QSN-2ECO-S	100%—1%	1—64	1—32
Lutron	GRAFIK Eye QS (120V ONLY)	QSGRJ- E, QSGR- E	100%—1%	1—64	1—32
Lutron	Quantum	Various	100%—1%	1—64	1—32

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.



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(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NCMS1-277-DIML6A

Notes:

Type:**RED**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE

DIML6A, 6E

DIML6B, 6F

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
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DIML6A and DIML6E LED Dimming Compatibility Table

DIML6A and DIML6E are linearly programmed dimming drivers for use with logarithmic-style dimming controls (e.g., Lutron and others listed in the table below)

DIML6A = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1%

DIML6E = EldoLED ECOdrive 0-10V control dims from 100% to 1%

DIML6A and DIML6E Dimmer Compatibility Chart				
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Dimmer*
120V & 277V				
			DIML6A 6E	Refer to manufacturer's
Lutron	Diva	DVTV/NFTV/NTFTV with PP-20	99% - 0.1%	1% dimmer load rating for
Lutron	Energi Savr Node	QSN-4T16-S	100% - 0.1%	1% maximum and minimum
Lutron	GP Dimming Panels	TVM2 Module	99% - 0.1%	1% fixture quantities per
Lutron	Interfaces	GRX-TVI w/ GRX3503	100% - 0.1%	1% dimmer.
Sensor Switch	nIO	nIO EZ	100% - 0.1%	1% Enlighted compatible.
enlighted	Control Unit	CU-3E-1R	100% - 0.1%	1%

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIML6B and DIML6F LED Dimming Compatibility Table

DIML6B and DIML6F are logarithmic-programmed dimming drivers for use with linear-style dimming controls (e.g., Crestron, non-Lutron and others listed in the table below)

DIML6B = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1%

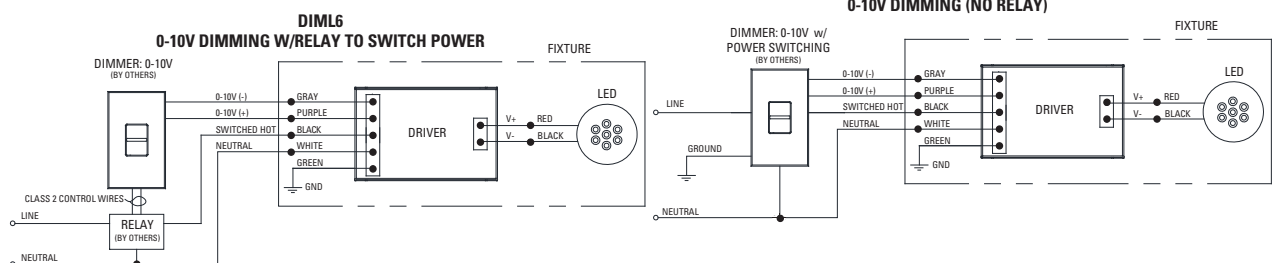
DIML6F = EldoLED ECOdrive 0-10V control dims from 100% to 1%

DIML6B and DIML6F Dimmer Compatibility Chart				
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Dimmer*
120V & 277V				
			DIML6B 6F	Refer to
Bush-Jaeger	Electronic potentiometer	2112U-101	100% - 0.1%	1% manufacturer's
Jung	Electronic potentiometer	240-10	100% - 0.1%	1% dimmer load
Leviton	IllumaTech dimmer	IP710-DLX	100% - 0.1%	1% rating for
Lightolier (Philips)	Momentum (120V ONLY)	ZP600FAM120	100% - 0.1%	1% maximum and
Merten	Electronic potentiometer	5729	100% - 0.1%	1% minimum fixture
Pass & Seymour	Titan	CD4FB-W	100% - 0.1%	1% quantities per
Watt Stopper	Miro	DCLV1	100% - 0.1%	1% dimmer.
Synergy	Wallbox Dimmers	ISD BC	100% - 0.1%	1% Enlighted
ABB	i-bus	SD/S 2.16.1	100% - 0.1%	1% compatible.
Crestron	Modules	GLX-DIMFLV8, GLXP-DIMFLV8	100% - 0.1%	1%
Crestron	Green Light	GLPAC-DIMFLV4-, GLPAC-DIMFLV8-	100% - 0.1%	1%
Crestron	Green Light Power Pack	GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM	100% - 0.1%	1%
Crestron	DIN Rail Analog Output Module	DIN-A08	100% - 0.1%	1%
Crestron	DIN Rail 0-10V Fluorescent Dimmer	DIN-4DIMFLV4	100% - 0.1%	1%
Crestron	iLux 0-10V Dimmer Expansion Module	CLS-EXP-DIMFLV	100% - 0.1%	1%
enlighted	Control Unit	CU-3E-1R	100% - 0.1%	1%

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NCM1-277-DIML6A

Notes:

Type:**RED**

LAI16-104794



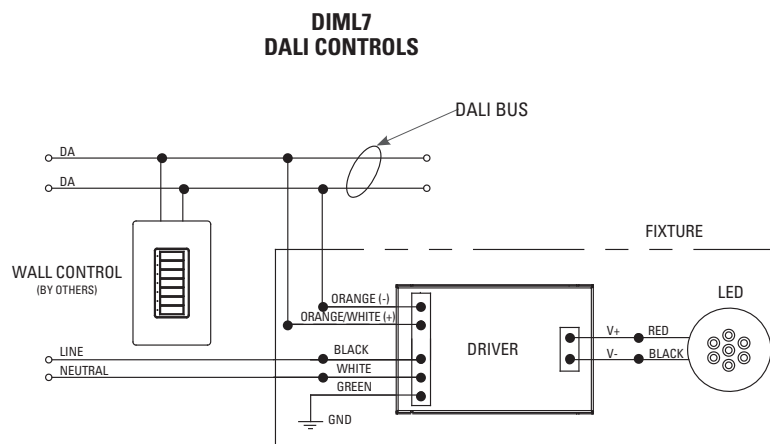
DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML7

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

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2. Only qualified electricians in accordance to local codes should install these fixtures.
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4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML7 LED: EldoLED DALI Dimming Driver Wiring (Dims down to 0.1%)

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NCSM1-277-DIML6A

Notes:

Type:**RED**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML9

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

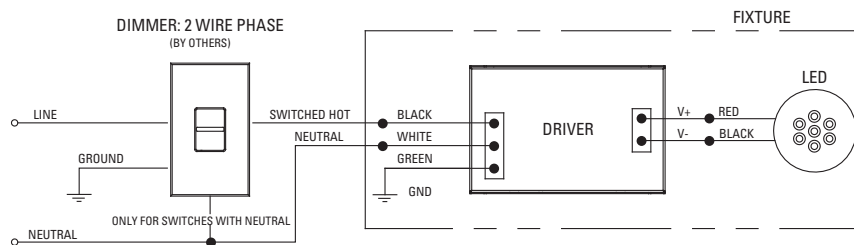
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

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4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML9 LED: TRIAC Forward Phase Dimming Driver Wiring (Dims down to 15%) 120V Only

DIML9 2 WIRE PHASE DIMMING



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

1011-B1-10-LSLD4-9020-M2-30KS-
50-NCSTM1-277-DIML6A

Notes:

Type:**RED**

LAI16-104794



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE DIML19

DIMMING DRIVER WIRING SCHEMES:**NOTES:**

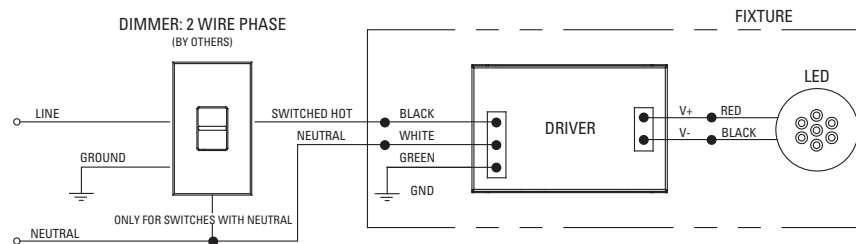
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS**- SAVE THESE INSTRUCTIONS**

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4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

DIML19 LED: Hatch XTC series or equivalent - Forward and Reverse Phase Dimming Driver.
Dims down to 1% contingent upon dimmer specification and load. 120V only.

DIML19 2 WIRE PHASE DIMMING

**DIML19 Dimmer Compatibility Chart**

120V ONLY		
Forward Phase / TRIAC Dimming		
Manufacturer	Product	Qty Fixtures Per Dimmer
Leviton	IPL06-10Z	Use fixture wattage per
	6613-xxx	fixture specification
Lutron	S-600P	sheet to determine
	S-603P	number of fixtures
	DV-600P	per dimmer. Max number
	DV-603P	of fixtures is limited by
	DVSC-603P	dimmer load rating.
	CT-600P	
	CT-603P	
120V ONLY		
Reverse Phase / ELV Dimming		
Manufacturer	Product	Qty Fixtures Per Dimmer
Leviton	6615	Use fixture wattage per
	IPE04-xxx	fixture specification
Lutron	NTELV-300	sheet to determine
	NTELV-600	number of fixtures
	SELV-300P	per dimmer. Max number
	SELV-303P	of fixtures is limited by
	DVELV-300P	dimmer load rating.
	DVELV-303P	

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

S-222-M007-L(9/16" REGULAR TILE)-
02-M-0-30-ZX

Notes:

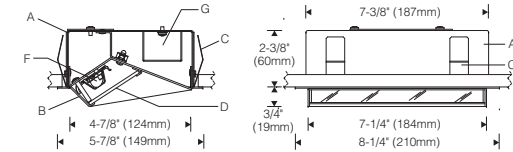
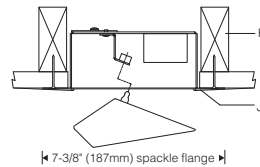
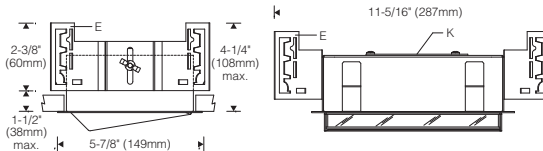
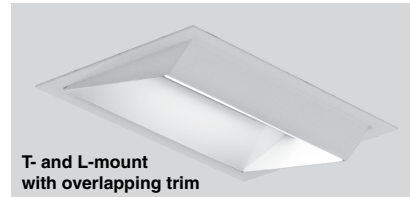
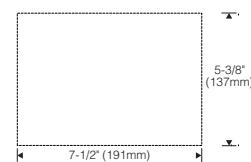
Type:**RF**

LAI16-104794

Lighting the Wall

Low profile semi-recessed, integral driver

Solid State (LED)

Style S222**T Mount: Non-accessible Ceiling** 1:8 Scale**P Mount: Non-accessible Ceiling** 1:8 Scale**L Mount: Accessible Grid Ceiling** 1:8 Scale**Rough Opening****T- and L-mount with overlapping trim****P-mount trimless****Specifications**

- | | | | |
|--|--|---|---|
| A Aluminum back box/trim frame | D Acrylic lens with elliptical diffusion | F Field serviceable light engine with fraqtir™ asymmetric optic | H Supplemental framing/support (by others) |
| B Removable aluminum heat sink/housing | E Universal mounting brackets (L mount) | G Integral constant current driver | J Skim coat of plaster |
| C Stainless steel mounting springs (4 included) | | | K Wiring access plate |

Optical Assembly:

Formed aluminum housing, back box and trim frame; stainless steel hardware and spring mounting clips. Extruded aluminum heat sink, light engine with precision molded asymmetric light bar of high temperature, water-clear acrylic. Light engine may be removed for service or upgrade. Acrylic lens with elliptical diffusion maximizes lateral distribution without disturbing asymmetric forward throw.

Finish:

Housing, back box and trim frame finished in choice of matte or semigloss white. Painted surfaces – 6 stage pretreatment and electrostatically applied thermoset polyester powder coating for a durable abrasion, fade and corrosion resistant finish.

Electrical:

Use 90°C wire for supply connections. Integral electronic HPF constant current driver with quick connector. For complete driver specifications, see website, reference document MA-1303. Access plate on top of back box with two 1/2" knockouts for supply wiring. Internal splice compartment allows for access to splices below ceiling.

12/15

U.S. Patent 8,465,190; foreign patents pending

Mounting:

Luminaire installs from below finished ceiling – up to 1-1/2" (38mm) thick.

T mount provided with overlapping trim and spring clips for gypsum board/inaccessible ceilings.

L mount provided with overlapping trim and adjustable brackets for T-bar grid/accessible ceilings. Supplemental support wires, bar hangers, etc. (by others) required for accessible ceilings.

P mount (trimless) provided with perforated spackle flange for gypsum board/inaccessible ceilings. Supplemental framing and/or support required (by others).

Standard: UL listed or CSA certified for dry locations.

Suitable for insulated ceilings (Type IC).
5 year warranty, maximum ambient temperature 45°C (113°F).

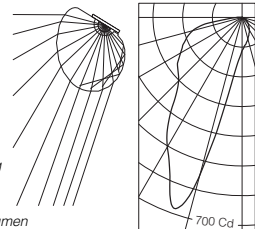
DLC for interior wall washing only.

**Features**

- Low profile – minimal silhouette focuses attention on the luminous wall, not the luminaire
- Shallow recessed depth – fits under ducts at core walls
- 17W input, output equivalent to 100W tungsten halogen
- Wide lateral distribution allows greater on-center spacing

Performance

fraqtir technology uses a combination of refraction and total internal reflection, creating a distribution of light ideal for illuminating surfaces uniformly. Glare is minimized while light delivered to the target is maximized, resulting in high application efficiency.



L90(10k) > 60,000 hrs
@ 25°C per TM-21



The Brighter Choice



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

S-222-M007-L(9/16" REGULAR TILE)-
02-M-0-30-ZX

Notes:

Type:**RF**

LAI16-104794

To Order**Style S222****To form a Catalog Number**

S 2 2 2 | | | | | | | | | |
1 2 3 4 5 6 7 8 9 10

Project: _____

Type: _____

1 Source**S** = Solid state (LED)**2 Style****222** = Low profile semi-recessed 6" x 8", integral driver**3 Drive Current/Light Output****L007** = 7 LEDs @ 350mA (481 lumens, 9W)**M007** = 7 LEDs @ 700mA (877 lumens, 17W)Based on 3000K/80+ CRI. [Click here](#) for scaled performance table.

Note: J and K codes are discontinued.

4 Mounting**T** = Overlapping flange with spring clips for gypsum board ceiling**L** = Overlapping flange with adjustable mounting brackets for accessible ceiling**P** = Perforated plaster flange (trimless) for gypsum board ceiling**5 Finish****02** = Semigloss white**22** = Matte white**99** = Custom RAL or computer matched color to be specified; consult sales representative**6 Voltage/Driver**

Electronic Driver

8 = 120-277V

Electronic Dimming Driver*

M = 120-277V

**Dimming range refers to % power input, % light output will vary.

Refer to Driver Information document [MA-1303](#)**7 Option****00** = No options**0B** = Vertical blade baffle, 25° shielding, matte gray, indoor use**0C** = Modified to comply with Chicago plenum code**0M** = For use in MRI medical facility (T mount only). MRI filters (by others) required on output of each remote driver. Consult factory prior to specification.**XX** = For modification not listed, include detailed description. Consult factory prior to specification.**8 Destination Requirement****0** = UL listed or CSA certified for U.S.**J** = UL listed or CSA certified for Canada**9 Color Temperature****27** = 2700K, 80+ CRI**2H** = 2700K, 90+ CRI**30** = 3000K, 80+ CRI**3H** = 3000K, 90+ CRI**35** = 3500K, 80+ CRI**40** = 4000K, 80+ CRI**4L** = 4000K, 70+ CRI

Note: Additional CCT and CRI options are available; consult factory.

10 Dimming****00** = Non-dimming**TE** = LightTech 120-277V input, dimming range 100-10%, line voltage trailing edge/reverse phase/ELV dimming (controls by others)**ZX** = 0-10V analog dimming 120-277V input, dimming range 100%-5%, 0-10V controls by others**EL** = eLdLED SOLoDrive 120-277V input, dimming range 100%-0.1%, 0-10V controls by others. Operates up to 4 luminaires; consult factory to specify.Note: **EL** is not suitable for MRI use (**0M** option).**L3** = Lutron A-Series 120-277V input, dimming range 100%-1%, Lutron EcoBus dimming (controls by others)**LH** = Lutron A-Series 120-277V input, dimming range 100%-1%, Lutron 3-wire dimming (controls by others)

**Dimming range refers to % power input, % light output will vary.

Refer to Driver Information document [MA-1303](#)**Example****S222-M007-T-02-M-00-0-30-ZX**

Low profile indoor LED, wall wash luminaire, formed aluminum housing and trim frame. Semigloss white. **fraqtir** light engine with (7) LEDs. Integral 120-277V, 700mA analog dimming driver compatible with 0-10V dimming controls by others, dims to 5% power (@120V), UL listed or CSA certified for U.S., Type IC, dry location. 3000K/80+ CRI.

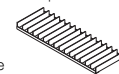
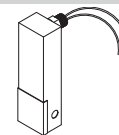
Accessories

Order separately. See Accessories Section for specifications.

AMR02050 = Accessory Magnetic Resonance imaging filter, 2 conductor up to 5 amps, attenuation > 100dB (5MHz to 10GHz)

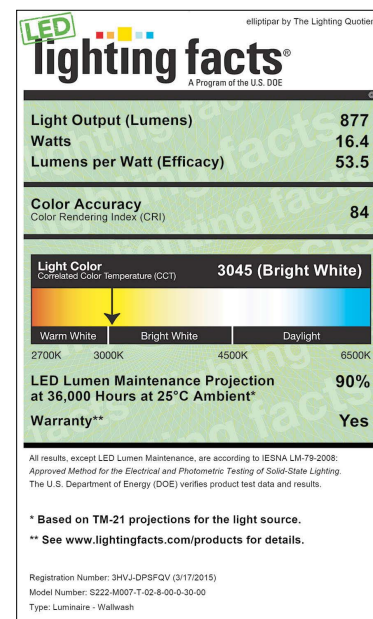
Note: one filter required per remote driver – consult factory for number of drivers required per luminaire.

AEJV2000 = Vertical blade baffle for 8" S222, 25° shielding, matte gray finish, indoor use



elliptipar
with **fraqtir** LED

elliptipar from The Lighting Quotient
114 Boston Post Road, West Haven, Connecticut 06516, USA
Voice 203.931.4455 • Fax 203.931.4464 • [thelightingquotient.com](#)



700 mA (3000K) output shown above

Certain products illustrated may be covered by applicable patents and patents pending. These specifications supersede all prior publications and are subject to change without notice. Copyright © 2015 Sylvan R. Shemitz Designs, LLC, all rights reserved.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) CSEDI-22-67L35K-DCC-DV-5F-
2H (2) EQ-CLIPS

Notes:

Type:**RG**

LAI16-104794

SIMPLESEAL™**CSEDI SERIES – LED – INSET DOOR****PRODUCT FEATURES:**

- » High-output, high-CRI LED lamp sources for accurate color rendition and lighting performance
- » Diffused high-efficiency lens for reduced glare
- » Recessed ceiling mount; grid or flange - 1'x4' (30.48cmx121.92cm), 2'x2' (60.96cmx60.96cm), 2'x4' (60.96cmx121.92cm)
- » Suitable for universal installation into 1.0" (2.54cm) and 1.5" (3.81cm) grid or flange (drywall) ceilings
- » One piece inset doorframe, secured to housing with aircraft cables.



1'x4'

2'x2'

2'x4'

SPECIFICATIONS

HOUSING: 20-gauge CRS. Hole-free, one-piece, seam-welded construction. Integral aluminum heat sink for thermal dissipation. 18-gauge housing flange with mitered and welded corners. White TGIC polyester powder coat finish – 5-step pre-treatment. Salt spray test: 1,000 hours; Reflectance: 92%.

DOORFRAME: 18-gauge CRS. One-piece inset-style construction with welded corners. Gloss white TGIC polyester powder coat finish with 5-stage pre-treatment. Doorframe secured to housing with stainless steel aircraft cables and captive, flush-mounted Phillips-head fasteners. Closed-cell silicone gasket seals doorframe to housing.

OPTICS: Symmetric optic includes diffused, impact-resistant acrylic lens.

ELECTRICAL: Available 3500K, 4000K and 5000K color temperatures. 120-277VAC, 50/60Hz electrical input with serviceable high power factor electronic, constant-current driver (<20% THD, >0.95 PF). Standard 0-10V dimming with 3-100% range.

INSTALLATION: Non-IC recessed ceiling mounting into grid and flange application types. Flange installation utilizes included adjustable swing-out mounting brackets. Grid installation suitable for 1" (2.54cm) and 1.5" (3.81cm) T-bar ceilings. Universal installation into grid or flange (drywall) ceiling applications. See Options for continuous row mounting and install frames.

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard. For additional photometric data, please go to www.kenall.com

WARRANTY: Limited five (5) year warranty.

LISTINGS: Luminaire is certified to UL standards by Intertek Testing Laboratories for Wet Location. Certified IP65 per IEC 60598. NSF2 Splash/Non-Food Zone. CCEA Approved. Meets K230 Leakage Standard for luminaire leakage in pressurized environments and FED-STD-209E/Class 100 (ISO 5) Cleanrooms.

**In Stock SKU**

CSEDI-24-90L40K-DCC-DV-5F-2H-SYM

ORDERING INFORMATION (Ex: CSEDI-24-67L40K-DCC-DV-2F-2H-SYM)

Model	Size	Lamp Type	Driver	Voltage	Doorframe	Housing	Optics	Options
CSEDI			DCC	DV			SYM	

Size

14 1'x4'
(30.48cmx121.92cm)
22 2'x2'
(60.96cmx60.96cm)
24 2'x4'
(60.96cmx121.92cm)

Lamp Type**1'x4' (30.48cmx121.92cm)**

45L35K* 45 Watt 3500K LED (82 CRI)
45L40K* 45 Watt 4000K LED (82 CRI)
45L50K* 45 Watt 5000K LED (82 CRI)
67L35K 67 Watt 3500K LED (82 CRI)
67L40K 67 Watt 4000K LED (82 CRI)
67L50K 67 Watt 5000K LED (82 CRI)
90L35K 90 Watt 3500K LED (82 CRI)
90L40K 90 Watt 4000K LED (82 CRI)
90L50K 90 Watt 5000K LED (82 CRI)

2'x2' (60.96cmx60.96cm)

45L35K* 45 Watt 3500K LED (82 CRI)
45L40K* 45 Watt 4000K LED (82 CRI)
45L50K* 45 Watt 5000K LED (82 CRI)
67L35K 67 Watt 3500K LED (82 CRI)
67L40K 67 Watt 4000K LED (82 CRI)
67L50K 67 Watt 5000K LED (82 CRI)
90L35K 90 Watt 3500K LED (82 CRI)
90L40K 90 Watt 4000K LED (82 CRI)
90L50K 90 Watt 5000K LED (82 CRI)

2'x4' (60.96cmx121.92cm)

45L35K* 45 Watt 3500K LED (82 CRI)
45L40K* 45 Watt 4000K LED (82 CRI)
45L50K* 45 Watt 5000K LED (82 CRI)
67L35K 67 Watt 3500K LED (82 CRI)
67L40K 67 Watt 4000K LED (82 CRI)
67L50K 67 Watt 5000K LED (82 CRI)
90L35K 90 Watt 3500K LED (82 CRI)
90L40K 90 Watt 4000K LED (82 CRI)
90L50K 90 Watt 5000K LED (82 CRI)
135L35K 135 Watt 3500K LED (82 CRI)
135L40K 135 Watt 4000K LED (82 CRI)
135L50K 135 Watt 5000K LED (82 CRI)
180L35K 180 Watt 3500K LED (82 CRI)
180L40K 180 Watt 4000K LED (82 CRI)
180L50K 180 Watt 5000K LED (82 CRI)

Driver Type

DCC Dimming Constant Current

Voltage

DV 120/277VAC, 50/60Hz

120 120VAC
277 277VAC
347 347VAC

Doorframe Options

5F 20-Ga Type 304 SS Brushed

2F 18-Ga CRS (STD)
AF Anodized Aluminum
PAF Painted Fabricated Aluminum

Housing Options

2H 20-Ga CRS (STD)
5H 20-Ga Type 304 SS
PAH .050" (.13cm) Painted Aluminum

Optics

SYM Symmetric, Diffused DR Acrylic

Options

LEL† Emergency Battery Pack (not available with DV Voltage option)
10KV 10KV/KA Surge Protection per IEEE/ANSI C62.41 Cat. A
AMF* Antimicrobial Finish
FS Fuse & Holder
HJ Sealed Wireway
IF†† Install Frame
RF* Radio Frequency Filter
RM† Continuous Row Mounting
2C Two Circuit Wiring

EQ CLIPS

* Add .375" (.95cm) to ceiling cut out dimensions

† Only available when installed in drywall ceilings (flange mount)

• Voltage specific selection required

‡ Height of fixture is 5.875" with LEL Option

* Applied only to exposed painted surfaces of luminaire (not available on stainless steel doorframes)

▼ n/a with 2C Option

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CSEDI_14_22_24-063016

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) CSEDI-22-67L35K-DCC-DV-5F-
2H (2) EQ-CLIPS

Notes:

Type:**RG**

LAI16-104794

For additional photometry, go to www.kenall.com**SIMPLESEAL™****CSEDI SERIES – TECHNICAL DATA**

PERFORMANCE		Initial Delivered Lumens		Input Power (W)	Drive Current (mA)	Estd. L70 LED Life (Hrs)
Model	Lamp Type	@ 25°C	Efficacy (lm/W)			
CSEDI14	45L35K	4388	88	50	94	80,000
	45L40K	4678	94	50	94	80,000
	45L50K	4865	97	50	94	80,000
	67L35K	6290	85	74	66	80,000
	67L40K	6706	91	74	66	80,000
	67L50K	6974	95	74	66	80,000
	90L35K	8510	86	99	94	60,000
	90L40K	9072	92	99	94	60,000
CSEDI22	45L35K	4358	87	50	94	80,000
	45L40K	4647	93	50	94	80,000
	45L50K	4833	97	50	94	80,000
	67L35K	6247	84	74	66	80,000
	67L40K	6660	90	74	66	80,000
	67L50K	6927	93	74	66	80,000
	90L35K	9042	91	99	94	60,000
	90L40K	9640	97	99	94	60,000
CSEDI24	90L50K	10026	101	99	94	60,000
	45L35K	4799	99	48	94	80,000
	45L40K	5116	106	48	94	80,000
	45L50K	5321	110	48	94	80,000
	67L35K	6878	94	73	66	80,000
	67L40K	7333	100	73	66	80,000
	67L50K	7626	104	73	66	80,000
	90L35K	8839	91	98	94	60,000
	90L40K	9423	97	98	94	60,000
	90L50K	9800	100	98	94	60,000
	135L35K	13654	92	148	94	60,000
	135L40K	14556	98	148	94	60,000
	135L50K	15138	102	148	94	60,000
	180L35K	20196	100	199	94	60,000
	180L40K	21531	107	199	94	60,000
	180L50K	22392	111	199	94	60,000

Displayed information is for selected luminaires only. Additional wattages and color temperatures are also available.
Visit www.kenall.com for additional information.

www.kenall.com

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CSEDI_14_22_24-063016

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) CSEDI-22-67L35K-DCC-DV-5F-
2H (2) EQ-CLIPS

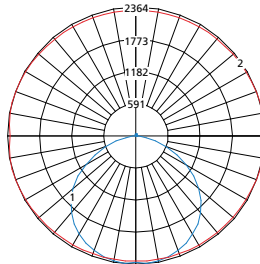
Notes:

Type:**RG**

LAI16-104794

SIMPLESEAL™**CSEDI SERIES – TECHNICAL DATA****PERFORMANCE**

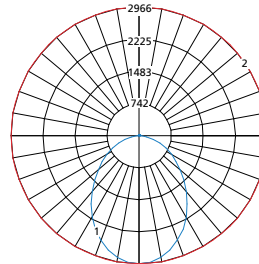
Model: CSEDI14-67L40K-DCC-1-DV-2F-2H



Maximum Candela = 2364 Located At Horizontal Angle = 15, Vertical Angle = 5

— 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
— 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

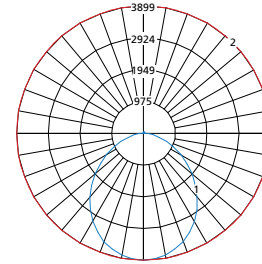
Model: CSEDI22-67L40K-DCC-1-DV-2F-2H



Maximum Candela = 2966 Located At Horizontal Angle = 0, Vertical Angle = 0

— 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
— 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

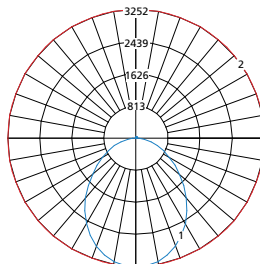
Model: CSEDI22-90L40K-DCC-1-DV-2F-2H-SYM



Max Candela = 3899 Located At Horizontal Angle = 0, Vertical Angle = 0

— 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
— 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

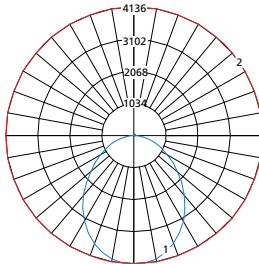
Model: CSEDI24-67L40K-DCC-1-DV-2F-2H



Maximum Candela = 3252 Located At Horizontal Angle = 0, Vertical Angle = 0

— 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
— 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

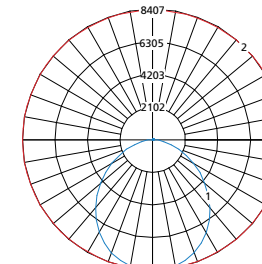
Model: CSEDI24-90L40K-DCC-1-DV-2F-2H



Maximum Candela = 4136 Located At Horizontal Angle = 0, Vertical Angle = 0

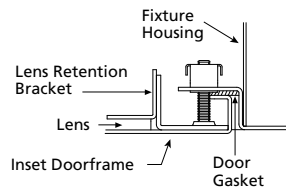
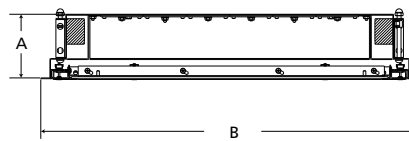
— 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
— 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

Model: CSEDI24-180L40K-DCC-1-DV-2F-2H-SYM



Max Candela = 8407 Located At Horizontal Angle = 0, Vertical Angle = 5

— 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
— 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

DIMENSIONAL DATA**GASKET PROFILE****CROSS SECTION****CEILING CUTOUT****DIMENSIONAL DATA (IN INCHES & CENTIMETERS)**

	A	B	C	D
12x48	4.20	11.75 x 47.75	10.85	46.85
30.48cm x 121.92cm	10.67	29.85 x 121.29	27.56	119.00
24x24	4.20	23.75 x 23.75	22.85	22.85
60.96cm x 60.96cm	10.67	60.33 x 60.33	58.04	58.04
24x48	4.20	23.75 x 47.75	22.85	46.85
60.96cm x 121.92cm	10.67	60.33 x 121.29	58.04	119.00

* Add .375" (.95cm) to ceiling cut out dimensions when IF Option is specified

** Height is 5.875" (15 cm) with LEL option



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CSEDI_14_22_24-063016

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LD4A18D010TE ERW4A18830
4LW1H

Notes:

Type:**RH**

LAI16-104794

DESCRIPTION

4 inch LED recessed narrow, medium, or wide beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 900, 1300, 1800 and 2800 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K.

SPECIFICATION FEATURES**Lower Shielding Reflector**

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight

conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

Thermal

Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

Driver

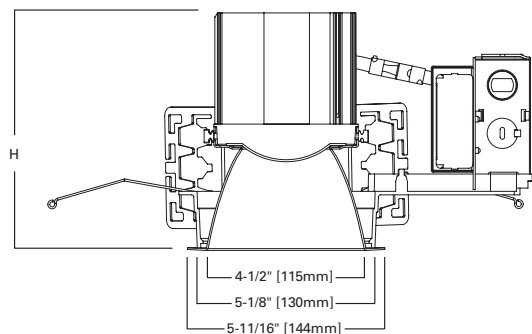
Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

Code Compliance

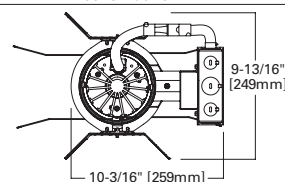
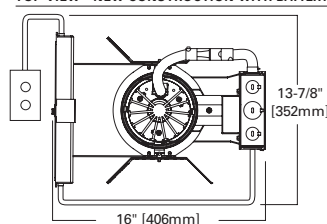
Thermally protected and cULus listed for protected wet locations. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

Warranty

5 year warranty.



Note: Max Opening 4-3/8" [111mm]

TOP VIEW - NEW CONSTRUCTION**TOP VIEW - NEW CONSTRUCTION WITH BATTERY**

Distribution	Lumens	Height
Narrow	900/1300	5-7/16"
Medium	900/1300	5-11/16"
Wide	900/1300	5-3/16"
Narrow	1800/2800	7-7/16"
Medium	1800/2800	7-11/16"
Wide	1800/2800	7-3/16"



**LD4A09 LD4A13
LD4A18 LD4A28
4L**

**900, 1300 Lumen LED
1800, 2800 Lumen LED**

**4-Inch
Narrow, Medium, or Wide Beam
Downlight
New Construction**



Refer to ENERGY STAR® Qualified Products List.



powered by
fifthlight
technology

ADP110786
2016-02-24 09:08:51

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LD4A18D010TE ERW4A18830

4LW1H

Notes:

Type:**RH**

LAI16-104794

LD4A09 LD4A13 LD4A18 LD4A28 4L

ORDERING INFORMATION**EXAMPLE: LD4A13D010TE ERM4A13835 4LM0L1=4"** LED Medium Beam Reflector Lens, 1300 lumen, 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing	Lumens ¹	Driver	Options ³	Power Module	Lumens	CRI	Color
LD4A=4" Aperture LD4ACP=4" Aperture, Chicago Plenum 09=900 Lumens 13=1300 Lumens 18=1800 Lumens 28=2800 Lumens	900, 1300, 1800 and 2800 Lumen D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=Fifth Light* (DALI) 0% Dimming DE010=0 to 100% Dimming, 120-277V 50/60Hz, 0-10V DL3=1 to 100% Dimming, 120-277V Lutron* Hi-Lume, Ecosystem or 3Wire DLT=Hi-Lume Forward Phase 2-wire Dimming 120V DMX=DMX 0% Dimming 900, 1300 and 1800 Lumen D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	EMBOD=7W Bodine® Emergency Module with Remote Test Switch IEMBOD=7W Bodine® Emergency Module with Integral Test Switch EM7=7W Emergency Module with Remote Test Switch⁴ EM14=14W Emergency Module with Remote Test Switch^{4,5} IEM7=7W Emergency Module with Integral Test Switch^{4,5} IEM14=14W Emergency Module with Integral Test Switch^{4,5}	ERN4A=4" Module for Narrow Beam Reflector ERM4A=4" Module for Medium Beam Reflector ERW4A=4" Module for Wide Beam Reflector 09=900 Lumen 13=1300 18=1800 Lumen 28=2800 Lumen	8=80 CRI 9=90 CRI	27=2700° K 30=3000° K 35=3500° K 40=4000° K 27CP=2700° K, Chicago Plenum 30CP=3000° K, Chicago Plenum 35CP=3500° K, Chicago Plenum 40CP=4000° K, Chicago Plenum		

Reflector	Finish	Options	Accessories
4LN0=4" Narrow Reflector Lens Assembly, White Polymer Trim Ring 4LN1=4" Narrow Reflector, Self-flanged 4LM0=4" Medium Reflector Lens Assembly, White Polymer Trim Ring 4LM1=4" Medium Reflector, Self-flanged 4LM0E=4" Medium Reflector Lens Assembly, White Polymer Trim Ring for Integral Emergency Option ⁵ 4LM1E=4" Medium Reflector Self-flanged for Integral Emergency Option ⁵ 4LW0=4" Wide Reflector Lens Assembly, White Polymer Trim Ring 4LW1=4" Wide Reflector, Self-flanged	L=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White 4LM0 Only BB=Black Baffle WB=White Baffle	Self-flanged Only WF= White Painted Flange	HB26=C-channel Bar Hanger , 26" Long, Pair HB50=C-channel Bar Hanger , 50" Long, Pair RMB22=Wood Joist Bar Hanger , 22" Long, Pair H347= 347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA TRM4P= Metal Trim Ring, White² TRM4MB= Metal Trim Ring, Black² TRR4= Rimless Trim Ring² LGSKT4IP66=IP66 Gasket Kit

- Notes:** 1 Nominal Lumens will vary depending on selected color, driver and reflector finish.
 2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).
 3 Not available with Chicago Plenum.
 4 Not CSA approved.
 5 For use in accessible ceilings only.
 6 For use with medium beam accessible ceilings only.

ENERGY

ENERGY DATA			
Sound Rating: Class A standards			
(Values at non-dimming line voltage)			
Minimum Starting Temperature: -30°C (-22°F)			
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)			
Input Voltage: UNV (120V - 277V)			
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)			
Input Frequency: 50/60Hz			
2800 Lumen D010TE		1800 Lumen D010TE	
Input Power: 43.4W	THD: <17%	Input Power: 31.5W	THD: <20%
120V Input Current: .36A	277V Input Current: .16A	120V Input Current: .27A	277V Input Current: .06A
1300 Lumen D010TE		900 Lumen D010TE	
Input Power: 22.4W	THD: <20%	Input Power: 14.1W	THD: <20%
120V Input Current: .12A	277V Input Current: .09A	120V Input Current: .12A	277V Input Current: .06A

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
900/1000	0.486	0.4	0.848	0.182
1300/1500	0.717	1.58	0.531	1.24
1800/2000	0.832	0.405	1.25	0.788
2800/3000	1.09	0.3	1.23	0.294

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LD4A18D010TE ERW4A18830
4LW1H

Notes:

Type:**RH**

LAI16-104794

LD4A09 LD4A13 LD4A18 LD4A28 4L

PHOTOMETRICS

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P133618					Degrees Vertical	Candela	Zone	Lumens	%Fixture	Average Candela Degrees	Average 0° Luminance
Platform	LD4A18D010TE					0	7058	0-30	1963	82.9	45	6933
Element	ERN4A18835 4LN1LI					5	6145	0-40	2313	97.7		
Lumens	2368					15	2836	0-60	2367	100		
Efficacy	72.2 Lm/W					25	1366	0-90	2368	100		
SC	0.4					35	564	90-180	0	0	75	0
						45	50	0-180	2368	100	85	0
						55	3					
						65	0					
						75	0					
						85	0					
						90	0					

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LD4A18D010TE ERW4A18830
4LW1H

Notes:

Type:**RHB**

LAI16-104794

DESCRIPTION

4 inch LED recessed narrow, medium, or wide beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 900, 1300, 1800 and 2800 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K.

SPECIFICATION FEATURES**Lower Shielding Reflector**

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight

conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

Thermal

Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

Driver

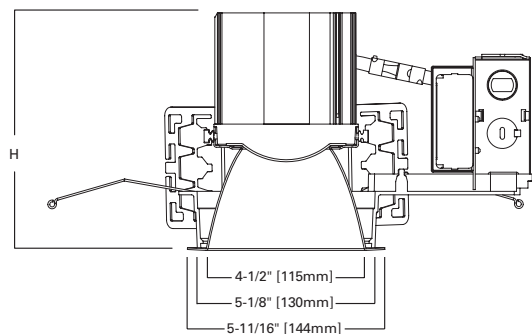
Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

Code Compliance

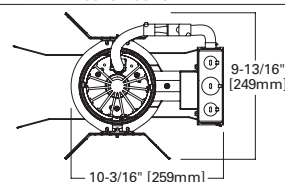
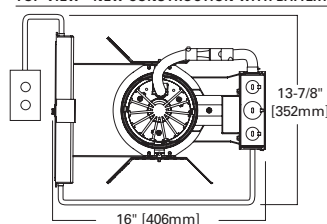
Thermally protected and cULus listed for protected wet locations. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

Warranty

5 year warranty.



Note: Max Opening 4-3/8" [111mm]

TOP VIEW - NEW CONSTRUCTION**TOP VIEW - NEW CONSTRUCTION WITH BATTERY**

Distribution	Lumens	Height
Narrow	900/1300	5-7/16"
Medium	900/1300	5-11/16"
Wide	900/1300	5-3/16"
Narrow	1800/2800	7-7/16"
Medium	1800/2800	7-11/16"
Wide	1800/2800	7-3/16"

Portfolio

Catalog #	Type
Project	
Comments	Date
Prepared by	



**LD4A09 LD4A13
LD4A18 LD4A28
4L**

**900, 1300 Lumen LED
1800, 2800 Lumen LED**

4-Inch

Narrow, Medium, or Wide Beam

Downlight

New Construction



Refer to ENERGY STAR® Qualified
Products List.



powered by
fifthlight
technology

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LD4A18D010TE ERW4A18830
4LW1H
Notes:

Type:**RHB**

LAI16-104794

LD4A09 LD4A13 LD4A18 LD4A28 4L

ORDERING INFORMATION**EXAMPLE: LD4A13D010TE ERM4A13835 4LM0L1=4"** LED Medium Beam Reflector Lens, 1300 lumen, 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing	Lumens ¹	Driver	Options ³	Power Module	Lumens	CRI	Color
LD4A=4" Aperture LD4ACP=4" Aperture, Chicago Plenum 09=900 Lumens 13=1300 Lumens 18=1800 Lumens 28=2800 Lumens	900, 1300, 1800 and 2800 Lumen D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=FiFth Light® (DALI) 0% Dimming DE010=0 to 100% Dimming, 120-277V 50/60Hz, 0-10V DL3=1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3Wire DLT=Hi-Lume Forward Phase 2-wire Dimming 120V DMX=DMX 0% Dimming 900, 1300 and 1800 Lumen D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	EMBOD=7W Bodine® Emergency Module with Remote Test Switch IEMBOD=7W Bodine® Emergency Module with Integral Test Switch EM7=7W Emergency Module with Remote Test Switch⁴ EM14=14W Emergency Module with Remote Test Switch^{4,5} IEM7=7W Emergency Module with Integral Test Switch^{4,5} IEM14=14W Emergency Module with Integral Test Switch^{4,5}	ERN4A=4" Module for Narrow Beam Reflector ERM4A=4" Module for Medium Beam Reflector ERW4A=4" Module for Wide Beam Reflector 09=900 Lumen 13=1300 18=1800 Lumen 28=2800 Lumen	8=80 CRI 9=90 CRI	27=2700° K 30=3000° K 35=3500° K 40=4000° K 27CP=2700° K, Chicago Plenum 30CP=3000° K, Chicago Plenum 35CP=3500° K, Chicago Plenum 40CP=4000° K, Chicago Plenum		

Reflector	Finish	Options	Accessories
4LN0= 4" Narrow Reflector Lens Assembly, White Polymer Trim Ring 4LN1= 4" Narrow Reflector, Self-flanged 4LM0= 4" Medium Reflector Lens Assembly, White Polymer Trim Ring 4LM1= 4" Medium Reflector, Self-flanged 4LM0E= 4" Medium Reflector Lens Assembly, White Polymer Trim Ring for Integral Emergency Option ⁵ 4LM1E= 4" Medium Reflector Self-flanged for Integral Emergency Option ⁵ 4LW0= 4" Wide Reflector Lens Assembly, White Polymer Trim Ring 4LW1= 4" Wide Reflector, Self-flanged	L= Specular Clear H= Semi-Specular Clear WMH= Warm Haze G= Specular Gold WH= Wheat WHH= Wheat Haze GP= Graphite GPH= Graphite Haze B= Specular Black W= Gloss White 4LM0 Only BB= Black Baffle WB= White Baffle	Self-flanged Only WF= White Painted Flange	HB26= C-channel Bar Hanger, 26" Long, Pair HB50= C-channel Bar Hanger, 50" Long, Pair RMB22= Wood Joist Bar Hanger, 22" Long, Pair H347= 347 to 120V Step Down Transformer, 75VA H347200= 347 to 120V Step Down Transformer, 200VA TRM4P= Metal Trim Ring, White ² TRM4MB= Metal Trim Ring, Black ² TRR4= Rimless Trim Ring ² LGSKT4IP66= IP66 Gasket Kit

- Notes:** 1 Nominal Lumens will vary depending on selected color, driver and reflector finish.
 2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).
 3 Not available with Chicago Plenum.
 4 Not CSA approved.
 5 For use in accessible ceilings only.
 6 For use with medium beam accessible ceilings only.

ENERGY

ENERGY DATA			
Sound Rating: Class A standards			
(Values at non-dimming line voltage)			
Minimum Starting Temperature: -30°C (-22°F)			
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)			
Input Voltage: UNV (120V - 277V)			
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)			
Input Frequency: 50/60Hz			
2800 Lumen D010TE		1800 Lumen D010TE	
Input Power: 43.4W	THD: <17%	Input Power: 31.5W	THD: <20%
120V Input Current: .36A	277V Input Current: .16A	120V Input Current: .27A	277V Input Current: .06A
1300 Lumen D010TE		900 Lumen D010TE	
Input Power: 22.4W	THD: <20%	Input Power: 14.1W	THD: <20%
120V Input Current: .12A	277V Input Current: .09A	120V Input Current: .12A	277V Input Current: .06A

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
900/1000	0.486	0.4	0.848	0.182
1300/1500	0.717	1.58	0.531	1.24
1800/2000	0.832	0.405	1.25	0.788
2800/3000	1.09	0.3	1.23	0.294

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

RDA4L230K27D2FX4WHT-P2CW MUST CLEARLY
STATE COMPATABLE WITH 1% DIMMING

Notes:**Type:****RJ4**

LAI16-104794

CONTECH
LIGHTING

RDA4L Series

Mini O2 Multiple LED

Recessed Downlight Adjustables

Catalog No. _____

Type _____

Project _____

Specifications/Features**Housing/Mounting**

High performance fixture delivering over 1400 lumens per head.
New construction housing design can also be used in remodel applications.
From single to four head units available. The four head unit is available in two configurations: rectilinear and two-by-two square.
Housing may be used for trimmed or trim-less applications.
Heavy duty 18-gauge steel housing; powder coat painted in matte black, white or silver.
Housing weights: 1-head = 5lbs, 2-head = 8lbs, 3-head = 11lbs, 4-head = 13lbs, 4-head 2X2 = 13lbs

Complete fixture [heads, drivers and junction box] can be accessed from below the ceiling.

Wing type mounting brackets allow for 3" vertical adjustment. Brackets will accept optional HB-24 flat hanger bars or HBC-24 "C" channel hangers.

Electrical

UL8750 and Class 2 Compliant; RoHS Compliant, US only.

Output over voltage, over-current and short circuit protection.

Approved for through circuit wiring. Maximum of (8) No. 12 AWG branch circuit conductors (4 in, 4 out).

Junction box has (9) 1/2" pry-outs.

Wire rating: 90°C. Thermally protected.

Lamp

Light engine consists of a single, high lumen output multi-chip LED array available in two wattage/lumen packages: 10W/1100Lm and 14W/1400Lm.

Excellent fixture-to-fixture color consistency within a 2-step MacAdam ellipse tolerance.

Precision TIR optics produce Spot (12°), Medium (29°) and Flood (37°) beam distributions. Each TIR optic has been optically engineered to provide a smooth uniform beam, maximizing output and minimizing glare.

System designed and rated for 50,000 hours at 70% lumen maintenance.

Lamp heads feature a constant tension design for tilt and rotation adjustability. Tilt mechanism can also be locked into place with a provided allen wrench.

Lamp heads provide 370° rotation and 45° tilt adjustability inside housing. For increased adjustability, the lamp head features a firm-feel detent pull-down mechanism (2" extension) which allows the head to tilt up to 90°. The pull-down mechanism can also be locked into place with a provided allen wrench.

Optional FA-44 Snoot/Accessory Holder accepts up to (2) LF16 60MM lenses or FA-16 60MM black honeycomb louver.

Trim Options**Trimmed**

Steel powder coat matte black, white and silver trims are available.

Steel torsion springs provide secure retention in housing.

Trimless

Allows ceiling to be finished and painted right to the aperture opening for a clean appearance. Trimless frame is steel with a matte white powder coat finish.

Dimming

All RDA4L Series fixtures are available for non-dimming and dimming applications.

Warranty

This fixture is covered by ConTech's five (5) year full replacement guarantee after date of purchase.

Listing

cCSAus Certified to UL standards. Suitable for dry or damp locations.

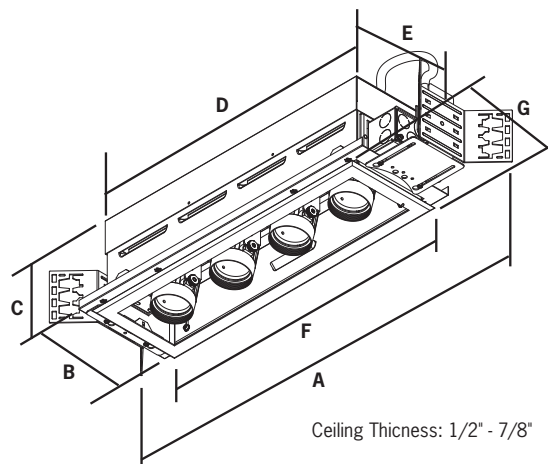
cCSAus Certified to UL924 Standard for Emergency Lighting.

Assembled in the USA.



	Series-1	Series-2
Input Voltage		
Non-Dimming	120V AC, 50/60Hz	120V AC, 50/60Hz
Non-Dimming	277V AC, 50/60Hz	277V AC, 50/60Hz
0-10V Dimming	120V AC, 50/60Hz	120V AC, 50/60Hz
0-10V Dimming	277V AC, 50/60Hz	277V AC, 50/60Hz
Triac Dimming: (F. Phase)	120V AC, 50/60Hz	120V AC, 50/60Hz
Triac Dimming: (F. Phase)	277V Not Available	277V AC, 50/60Hz
ELV Dimming (R. Phase)	120V AC, 50/60Hz	120V AC, 50/60Hz
ELV Dimming (R. Phase)	277V AC, 50/60Hz	277V AC, 50/60Hz
Input Wattage*	10	14
Input Current (A)* 120/277	.08/.04	.12/.05
Color Temp	2700K/3000K/	2700K/3000K/
	3500K/4000K	3500K/4000K
CRI Standard/High	83 (80min) / 90+	83 (80min) / 90+
Driver		
Power Factor	> 0.90	> 0.90
THD	< 20%	< 20%
Dimming		
0-10V Dimming	15-100%	15-100%
Triac Dimming (F. Phase)	10-100% (120V Only)	10-100%
ELV Dimming (R. Phase)	10-100% (120V Only)	10-100%

*Based upon a single head



MODEL	OVERALL			HOUSING		TRIM EDGE = 1"		CEILING CUT-OUT	
	LENGTH	WIDTH*	HEIGHT	LENGTH	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH
	A	B	C	D	E	F	G		
X1	15-1/2"	6-7/8"	6-3/4"	5-7/8"	5-1/4"	6-9/16"	6-9/16"	6-1/8"	5-1/2"
X2	20-1/4"	6-7/8"	6-3/4"	10-9/16"	5-1/4"	11-5/16"	6-9/16"	10-7/8"	5-1/2"
X3	24-7/8"	6-7/8"	6-3/4"	15-5/16"	5-1/4"	16"	6-9/16"	15-5/8"	5-1/2"
X4	29-5/8"	6-7/8"	6-3/4"	20"	5-1/4"	20-3/4"	6-9/16"	20-5/16"	5-1/2"
X22	20-1/4"	11-5/8"	6-3/4"	10-9/16"	9-15/16"	11-5/16"	11-5/16"	10-7/8"	10-1/4"

*WING BRACKET (RL-KIT #3) WIDTH = 7-3/8"

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

RDA4L230K27D2FX4WHT-P2CW MUST CLEARLY
STATE COMPATABLE WITH 1% DIMMING

Notes:

Type:**RJ4**

LAI16-104794

CONTECH
LIGHTING

RDA4L Series

Mini O2 Multiple LED

Recessed Downlight Adjustables

Catalog No. _____

Type _____

Project _____

Ordering Information

Example Order: RDA4LI27KCI2DISX22BLK - P

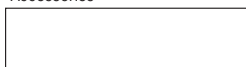
1% DIMMING STANDARD

Housing	LED Series	Color Temp	Electrical/Dimming	Beam	Lamps	Housing/ Head Finish	Trim Finish	Options
RDA4L	1 - 1100 Lumens 2 - 1400 Lumens	27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K 27KC - 2700K, 90+ CRI 30KC - 3000K, 90+ CRI 35KC - 3500K, 90+ CRI 40KC - 4000K, 90+ CRI	12 - 120V Non-Dimming 27 - 277V Non-Dimming 12D1 - 120V TRIAC (F. Phase) Dimming 27D1 ¹ - 277V TRIAC (F. Phase) Dimming 12D2 ¹ - 120V 0-10V Dimming 27D2 ¹ - 277V 0-10V Dimming 12D5 ¹ - 120V ELV (R. Phase) Dimming 27D5 ¹ - 277V ELV (R. Phase) Dimming	S - Spot M - Medium F - Flood	X1 - One Square X2 - Two Linear X3 - Three Linear X4 - Four Linear X22 - Four Square 2x2	BLK - Matte Black WHT - Matte White SL - Satin Silver	B - Matte Black P - Matte White S - Satin Silver N - Trimless	CP ² - Chicago Plenum ER ³ - Factory Installed 7W/200mA Emergency Battery Backup, Remote Test Switch EI ³ - Factory Installed 7W/200mA Emergency Battery Backup, Internal Test Switch Installed in Side Wall of Housing

2-CIRCUIT

Consult factory when different beams, color temperatures, lumen packages, or multiple circuits (2-maximum) are required in a single multiple-head fixture.

- Series 1 is not available for use with 27D1, 12D2, 27D2, 12D5 or 27D5 dimming options.
- Chicago Plenum is not available for use with Series 2. Cannot be used with the Emergency Battery Backup option.
- Emergency Battery Backup: For use in new construction applications only - requires above ceiling access. Will only energize one (1) head on a multi-head unit - 400 lumen nominal average for either Series 1 or Series 2.

Accessories

- 2INOPTIC-S** - 2" TIR Optic, Spot Beam
2INOPTIC-M - 2" TIR Optic, Medium Beam
2INOPTIC-F - 2" TIR Optic, Flood Beam
HB-24 - 27" Flat Hanger Bars
HBC-24 - 25" C-Channel Hanger Bars
FA-16 60MM - 2-3/8" Dia. Black Honeycomb Louver
FA-44-(B, P, S) - 1" Snoot/Accessory Holder
LF16-* 60MM - 2-3/8" Dia. Tempered Glass Lenses;
 Requires FA-44 Snoot/Accessory Holder

Note: When a Snoot, Louver, or Lens is desired, ensure the same quantity is ordered as the number of heads on the unit, e.g. a two-head unit would require two media be ordered.

***Color/Pattern Legend**

-A (Amber), -B (Blue), -CL (Clear), -G (Green), -LB (Light Blue), -R (Red), -RO (Rose), -Y (Yellow),
 -73 (Spread Lens), -LS (Linear Spread Lens), -SL (Soft Light), -SOL (Solite), -UV (Optivex UV Filter)

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

RDA4L230K27D2FX4WHT-P2CW MUST CLEARLY
STATE COMPATABLE WITH 1% DIMMING

Notes:

Type:**RJ4**

LAI16-104794

CONTECH
LIGHTING

RDA4L Series

Mini O2 Multiple LED

Recessed Downlight Adjustables

Catalog No. _____

Type _____

Project _____

Photometrics**Multiplication Factors**

CCT	STANDARD CRI	HIGH CRI	SERIES 1, 11W
2700K	0.94	0.70	0.75
3000K	N/A	0.75	0.75
3500K	1.0	0.81	0.75
4000K	1.0	0.87	0.75

Photometric and wattage information are based upon test performance for a single head unit

14W Spot Beam, 3000K: RDA4L230K12D1SX1

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. 87351

Light Output (Fixture Delivered Lumens): 1184

Total Watts@120V: 13.8; Lumens Per Watt: 85.8

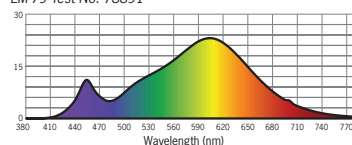
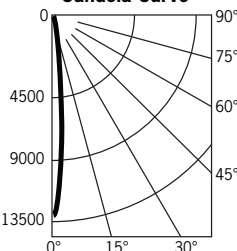
Center Beam Candle Power: 13269

Color Rendering Index (CRI): 83

Color Temperature (CCT): 3073K

Spectral Power Distribution Chart*

LM-79 Test No. 78891

**Candela Curve****Candlepower Summary**

FROM 0	CANDELA	LUMENS
0	13269	
5	8506	617
15	1364	394
25	190	99
35	33	23
45	20	15
55	15	13
65	12	12
75	6	7
85	3	3
95	0	

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	829.3	0.9
6'	368.6	1.3
8'	207.3	1.7
10'	132.7	2.2
12'	92.1	2.6
14'	67.7	3.0

Beam Distribution: 12°
Spacing Criterion: 0.22

14W Medium Beam, 3000K: RDA4L230K12D1MX1

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. 87352

Light Output (Fixture Delivered Lumens): 1432

Total Watts@120V: 13.8; Lumens Per Watt: 103.8

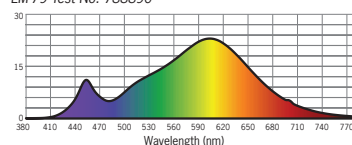
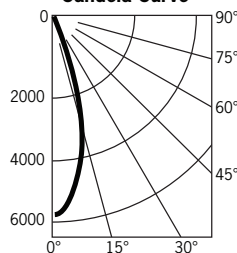
Center Beam Candle Power: 5909

Color Rendering Index (CRI): 83

Color Temperature (CCT): 3086K

Spectral Power Distribution Chart*

LM-79 Test No. 78890

**Candela Curve****Candlepower Summary**

FROM 0	CANDELA	LUMENS
0	5909	
5	5481	486
15	2711	718
25	278	179
35	52	35
45	10	9
55	3	2
65	1	1
75	1	1
85	0	0
95	0	

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	369.3	1.9
6'	164.1	2.9
8'	92.3	3.8
10'	59.1	4.8
12'	41.0	5.7
14'	30.1	6.7

Beam Distribution: 29°
Spacing Criterion: 0.46

14W Flood Beam, 3000K: RDA4L230K12D1FX1

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. 87353

Light Output (Fixture Delivered Lumens): 1478

Total Watts@120V: 13.8; Lumens Per Watt: 107.1

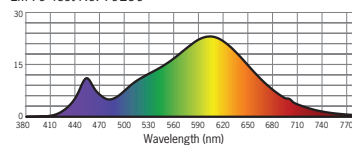
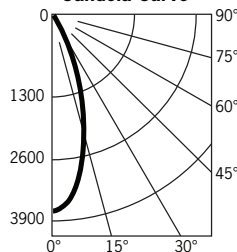
Center Beam Candle Power: 3752

Color Rendering Index (CRI): 83

Color Temperature (CCT): 3061K

Spectral Power Distribution Chart*

LM-79 Test No. 79250

**Candela Curve****Candlepower Summary**

FROM 0	CANDELA	LUMENS
0	3752	
5	3450	310
15	2254	625
25	960	429
35	115	82
45	25	22
55	5	5
65	3	3
75	2	2
85	1	1
95	0	

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	234.5	2.3
6'	104.2	3.5
8'	58.6	4.6
10'	37.5	5.8
12'	26.1	7.0
14'	19.1	8.1

Beam Distribution: 37°
Spacing Criterion: 0.58

1. Accuracy of rendering colors
2. Color appearance of light source
3. Colors present within the light source

*Dependent on surrounding temperatures

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

RDA4L230K27D2FX4WHT-P2CW MUST CLEARLY
STATE COMPATIBLE WITH 1% DIMMING

Notes:

Type:**RJ4**

LAI16-104794



ENERGY RECOVERY PRODUCTS™



ESS010	3-10 W
ESS015	11-15 W
ESS020	16-20 W
ESS030	21-30 W

Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

Input Voltage	Max. Output Power	Output Voltage	Output Current	Efficiency	Max. Case Temperature	THD	Power Factor	Dimming Method	Dimming Range	Startup Time
90 to 305 Vac maximum	30 W	14 to 56 Vdc	250 mA to 1.1 A CC	≥ 85% typical	90°C (measured at the hot spot)	< 20%	> 0.9	Forward-Phase, Reverse-Phase & 0-10V	1 - 100% (% of Iout)	300 ms

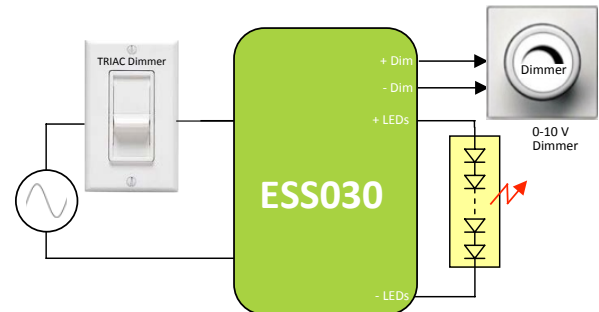
CC: Constant Current

PRODUCT DESCRIPTION

The ESS series of LED drivers is ideally suited for LED lighting applications in office, commercial and residential. These devices are compatible with most industry standard phase-cut wall-based dimmers, both forward-phase (leading-edge) and reverse-phase (trailing edge), and 0-10V wall-based dimmers and offer deep dimming from 100% down to 1%.

FEATURES

- Compatible with TRIAC (forward-phase or leading-edge) / ELV (reverse-phase or trailing-edge) and 0-10 V dimmers
- TRIAC dimming only at 120 Vac
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: FCC CFR Title 47 Part 15 Class B (120 Vac) and Class A (277 Vac) and EN55015 (CISPR 15) compliant
- Enables ENERGY STAR® and DLC (DesignLight Consortium®) luminaire compliance
- IP64-rated case
- 90°C maximum case hot spot temperature
- Lifetime: 109,000 hours at 70°C case hot spot temperature (57°C ambient temperature) for ESS030W-0620-42 (26 W)
- Class 2 power supply
- Double-insulated power supply between input and output (class II)
- Worldwide safety approvals



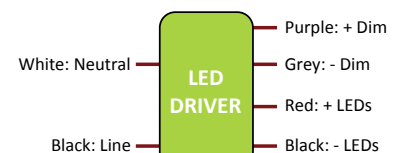
TYPICAL APPLICATION DIAGRAM



PLASTIC CASE:
L 84 x W 40 x H 25 mm (L 3.30 x W 1.57 x H 0.99 in)

APPLICATIONS

- Recessed lighting (downlights)
- Commercial & Residential lighting
- Architectural lighting



WIRING DIAGRAM

**Job Name:**

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(SAINT LOUIS)

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STATE COMPATABLE WITH 1% DIMMING

Notes:**Type:****RJ4**

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ENERGY RECOVERY PRODUCTS™



ESS010 3-10 W
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Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

I - INPUT SPECIFICATION (@25°C ambient temperature)

	Units	Minimum	Typical	Maximum	Notes
Input Voltage Range (Vin)	Vac	90	120/220/230/ 240/277	305	The rated output current for each model is achieved at Vin ≥ 108 Vac and at Vin ≥ 198 Vac, at nominal load.
Input Frequency Range	Hz	47	60	63	
Power Factor (PF)		0.9	> 0.9		- At nominal input voltage and with nominal LED voltage - For derivative models < 10W, PF ≥ 0.8 at 277 Vac only - For derivative models < 5W, PF ≥ 0.7 at 277 Vac only
Inrush Current		Meets NEMA-410 requirements			At any point on the sine wave and 25°C
Leakage Current	µA			250 µA @ 120 Vac 500 µA @ 230 Vac 600 µA @ 277 Vac	Measured per IEC60950-1
Input Harmonics		Complies with IEC61000-3-2 for Class C equipment			
Total Harmonics Distortion (THD)				20%	- At nominal input voltage and nominal LED voltage - Complies with DLC (DesignLight Consortium) technical requirements v2.1
Efficiency	%	-	85%	-	Measured with nominal input voltage, a full sinusoidal wave form and without dimmer connected
Isolation		Meets UL60950-1 for class II reinforced/double insulation power supply ☐			

2 - OUTPUT SPECIFICATION (@25°C ambient temperature)

	Units	Minimum	Typical	Maximum	Notes
Output Voltage (Vout)	Vdc	14		56	See ordering information for details
Output Current (Iout)	mA	250		1100	- See ordering information for details - The rated output current for each model is achieved at Vin ≥ 108 Vac and at Vin ≥ 198 Vac, at nominal load.
Output Current Regulation	%	-5	±2.5	5	- At nominal AC line voltage - Includes load and current set point variations
Output Current Overshoot	%	-	-	10	The driver does not operate outside of the regulation requirements for more than 500 ms during power on with nominal LED load and without dimmer.
Ripple Current		≤ 40% of rated output current for each model			- Measured at nominal LED voltage and nominal input voltage without dimming. - Calculated in accordance with the IES Lighting Handbook, 9th edition.
Dimming Range (% of Iout)	%	1		100	The dimming range will be dependent on each specific dimmer.
Start-up Time	ms		300		With nominal LED voltage and without dimmer attached
			400		With nominal LED voltage, with an approved dimmer attached (see list of approved dimmers in page 5) and at the full dimming conduction angle

Output Controls

+Dim Signal, -Dim Signal	The +Dim/-Dim signal pins can be used to adjust the output setting via a standard commercial wall dimmer, an external control voltage source (0 to 10 Vdc), or a variable resistor when using the recommended number of LEDs. The dimming input permits 1% to 100% dimming.
--------------------------	---

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RDA4L230K27D2FX4WHT-P2CW MUST CLEARLY
STATE COMPATABLE WITH 1% DIMMING

Notes:**Type:****RJ4**

LAI16-104794



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ESS010 3-10 W
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Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

3 - ENVIRONMENTAL CONDITIONS

	Units	Minimum	Typical	Maximum	Notes
Operating Case Temperature (Tc)	°C	-30		+90	Case temperature measured at the hot spot • tc (see label in page 10)
Storage Temperature	°C	-40		+85	
Humidity	%	5	-	95	Non-condensing
Cooling	Convection cooled				
Acoustic Noise	dBA			24	Measured at a distance of 1 meter, without and with approved dimmers
Mechanical Shock Protection	per EN60068-2-27				
Vibration Protection	per EN60068-2-6 & EN60068-2-64				
MTBF	> 300,000 hours when operated at nominal input and output conditions, and at Tc ≤ 70°C				

4 - EMC COMPLIANCE AND SAFETY APPROVALS

EMC Compliance					
Conducted and Radiated EMI		• FCC CFR Title 47 Part 15 Class B at 120 Vac and Class A at 277 Vac, • EN55015 (CISPR 15) compliant at 220/230/240 Vac			
Harmonic Current Emissions		IEC61000-3-2	For Class C equipment		
Voltage Fluctuations & Flicker		IEC61000-3-3			
Immunity Compliance	ESD (Electrostatic Discharge)	IEC61000-4-2	6 kV contact discharge, 8 kV air discharge, level 3		
	RF Electromagnetic Field Susceptibility	IEC61000-4-3	3 V/m, 80 - 1000 MHz, 80% modulated at a distance of 3 meters		
	Electrical Fast Transient	IEC61000-4-4	± 2 kV on AC power port for 1 minute, ±1 kV on signal/control lines		
	Surge	IEC61000-4-5	± 1 kV line to line (differential mode) / ± 2 kV line to common mode ground (tested to secondary ground) on AC power port, ±0.5 kV for outdoor cables		
	Conducted RF Disturbances	IEC61000-4-6	3V, 0.15-80 MHz, 80% modulated		
	Voltage Dips	IEC61000-4-11	>95% dip, 0.5 period; 30% dip, 25 periods; 95% reduction, 250 periods		
Transient Protection	Ring Wave		ANSI/IEEE c62.41.1-2002 & c62.41.2-2002 category A, 2.5 kV ring wave		
Safety Agency Approvals					
UL	UL8750 recognized	UL60950-1 recognized			
cUL	CSA C22.2 60950-1				
CE	IEC61347-2-13 electronic control gear for LED Modules				
Safety					
	Units	Minimum	Typical	Maximum	Notes
Hi Pot (High Potential)	Vdc	4242			•Insulation between the input (AC line and Neutral) and the output •Tested at the RMS voltage equivalent of 3000 Vac

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Notes:**Type:****RJ4**

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ENERGY RECOVERY PRODUCTS™



ESS010	3-10 W
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Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

5 - PROTECTION FEATURES

Under-Voltage (Brownout)

The ESS series provides protection circuitry such that an application of an input voltage below the minimum stated in paragraph 1 (Input Specification) shall not cause damage to the driver.

Short Circuit

The ESS series is protected against short-circuit such that a short from any output to return shall not result in a fire hazard or shock hazard. The driver shall hiccup as a result of a short circuit or over current fault. Removal of the fault will return the driver to within normal operation. The driver shall recover, with no damage, from a short across the output for an indefinite period of time.

Internal Over temperature Protection

The ESS series incorporates circuitry that prevents internal damage due to an over temperature condition. An over temperature condition may be a result of an excessive ambient temperature or as a result of an internal failure. When the over temperature condition is removed, the driver shall automatically recover.

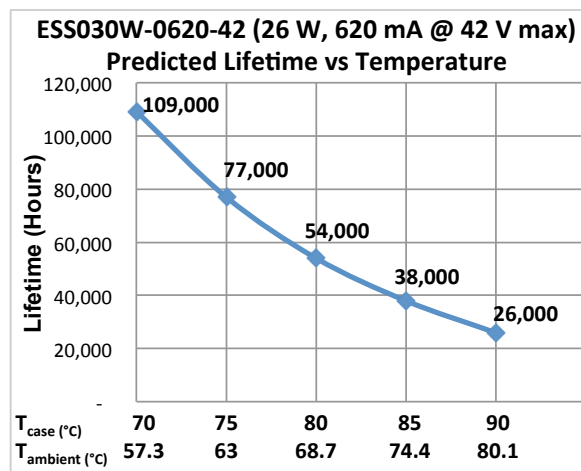
Output Open Load

When the LED load is removed, the output voltage of the ESS series is limited to 1.3 times the maximum output voltage of each model.

6 - PREDICTED LIFETIME VERSUS CASE AND AMBIENT TEMPERATURE

Lifetime is defined by the measurement of the temperatures of all the electrolytic capacitors whose failure would affect light output under the nominal LED load and worst case AC line voltage. The graph in figure 1 is determined by the electrolytic capacitor with the shortest lifetime, among all electrolytic capacitors. The lifetime of an electrolytic capacitor is measured when any of the following changes in performance are observed:

- 1) Capacitance changes more than 20% of initial value
- 2) Dissipation Factor ($\tan \delta$): 150% or less of initial specified value
- 3) Equivalent Series Resistance (ESR): 150% or less of initial specified value
- 4) Leakage current: less of initial specified value

**Figure 1**

It should be noted the graph "Lifetime vs. Ambient Temperature" may have an error induced in the final application if the mounting has restricted convection flow around the case. For applications where this is evident, the actual case temperature measured at the T_c point in the application should be used for reliability calculations.

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ESS015	11-15 W
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Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

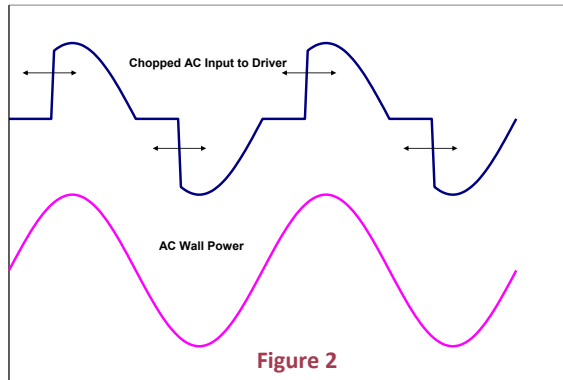
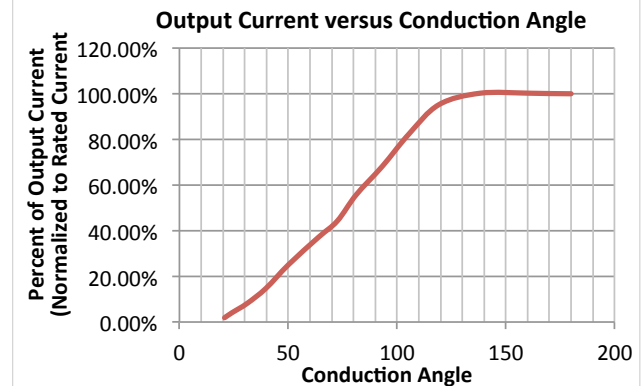
7 - PHASE-CUT DIMMING

Dimming of the driver is possible with standard TRIAC-based incandescent dimmers that chop the AC voltage as shown in Figure 2, or with ELV dimmers. During the rapid rise time of the AC voltage when the dimmer turns on, the driver does not generate any voltage or current oscillations, and inrush current is controlled. During the on-time of the AC input, the driver regulates the output current based upon the conduction angle. The RMS value of the driver output current is proportional to the on-time of the AC input voltage. When operating with an incandescent dimmer, the RMS output current varies depending upon the conduction angle and RMS value of the applied AC input voltage. Figure 3 shows the typical output current versus conduction angle at nominal input voltage.

TRIAC dimming is only offered at 120 Vac.

The ESS010/020/030 series offers dimming compatibility with both phase-cut (reverse-phase and forward-phase) and 0-10V dimmers. Phase-cut dimming always has priority over 0-10 V dimming.

When using low power ESS models (specifically < 10 W) with a reverse-phase or forward-phase dimmer, always make sure the minimum required load is applied to the dimmer. Check the dimmer documentation for minimum load requirements.

**Figure 2****Figure 3**

8 - COMPATIBLE PHASE-CUT DIMMERS & DIMMING RANGE

120Vac Dimmers					
Mfg.	Model	Mfg.	Model	Mfg.	Model
Lutron	S-603PG	Lutron	DVELV-303P	Lutron	CT-103P
Leviton	IPI06-1LZ	Lutron	SELV-300P	Cooper	SLC03P
Leviton	6631-2	Leviton	6683-IW	Leviton	IPE04
Lutron	DVCL-153P	Leviton	6161	Lutron	MAELV-600
Lutron	DV-600P	Leviton	6633-P	Lutron	FAELV-500
Lutron	TGCL-153P	Lutron	TG-600P	Lightolier	ZP260QEW
Lutron	S-600P	Cooper	DLC03P	Cooper	DAL06P
Leviton	VPE06	Lutron	LG-600P		

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Catalog Number:

RDA4L230K27D2FX4WHT-P2CW MUST CLEARLY
STATE COMPATABLE WITH 1% DIMMING

Notes:**Type:****RJ4**

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ESS010	3-10 W
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Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

9 - 0-10V DIMMING

The ESS drivers operate only with 0-10V dimmers that sink current. They are not designed to operate with 0-10V control systems that source current, as used in theatrical/entertainment systems. Developed in the 1980's, the 0-10V sinking current control method is adopted by the International Electrotechnical Commission (IEC) as a part of their IEC Standard 60929 Annex E.

The method to dim the output current of the driver is done via the +Dim/-Dim Signal pins. The +Dim/-Dim Signal pins respond to a 0 to 10 V signal, delivering 1% to 100% of the output current based on rated current for each model. A pull-up resistor is included internal to the driver. When the +Dim input (purple) is short circuited to the -Dim wire (grey) or to the -LED wire (black), a small amount of current may be present on the output and, in that condition, shimmering may be observed. If the +Dim input is ≤ 1 V and ≥ 0.6 V, the output current is still present, as shown in figure 4.

If the +Dim input is >10 V or open circuited, the output current is programmed to 100% of the rated current.

When not used, the -Dim wire (grey) and to the +Dim wire (purple) can be capped or cut off. In this configuration, no dimming is possible and the driver delivers 100% of its rated output current.

The maximum source current (flowing from the driver to the 0-10V dimmer) supplied by the +Dim Signal pin is < 0.6 mA. The tolerance of the output current while being dimmed shall be $\pm 8\%$ typical until down to 2V.

There are two 0-10V dimming transfer functions available, a linear curve where 10V = 100% of the output current and 1 V = 10 % of the output current (seen in figure 4) or a non-linear curve where the 9V = 100% of the output current and 1V = 1% of the output current (seen in figure 5).

The non-linear curve is recommended when using standard in wall 0-10 V logarithmic dimmers to avoid having insufficient source current available to pull the dimmer up to 10V and to account for the inability of the dimmer to pull below approximately 0.9V. In these type of installations, the modified transfer function will ensure 100% light output and dimming to 1%, regardless of the number of drivers on the 0-10V dimming line.

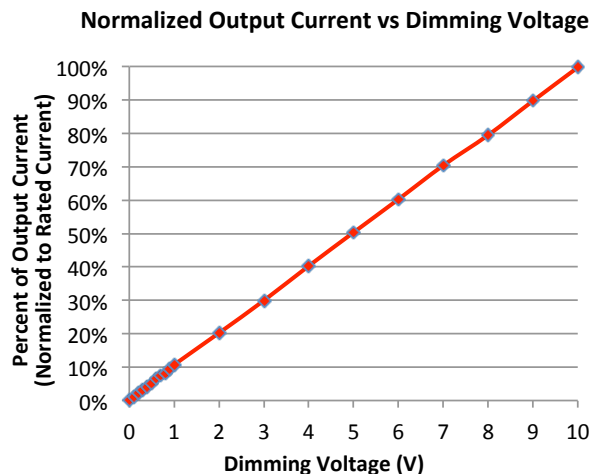


Figure 4

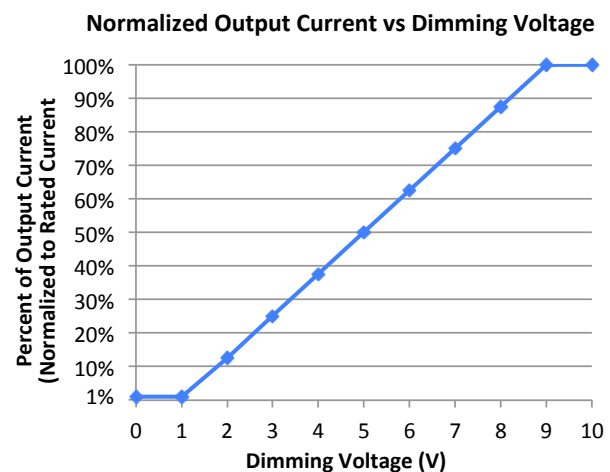


Figure 5

**Job Name:**

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

RDA4L230K27D2FX4WHT-P2CW MUST CLEARLY
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Notes:**Type:****RJ4**

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Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

9 - 0-10V DIMMING (CONTINUED)

A fixed or variable resistor can be also used from the dimming input to the return to adjust the output current. Figure 6 show the relationship of the output current to a resistor connected across the 0-10V dimming input.

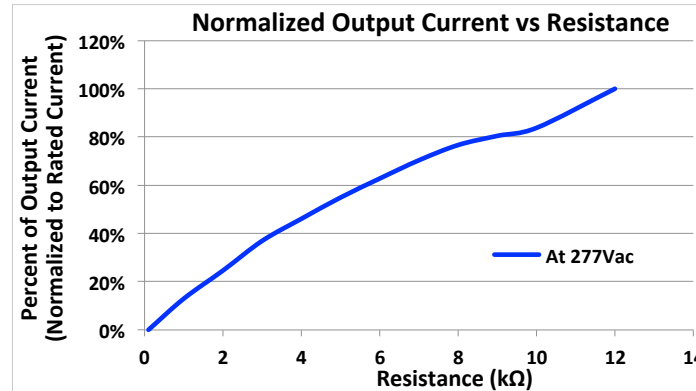


Figure 6

10 - COMPATIBLE 0-10V DIMMERS

- Lutron, Nova series (part number NFTV)
- Lutron, Diva series (part number DVTV)
- Leviton, IllumaTech series (part number IP710-DL)

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ESS010	3-10 W
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Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

11 - MECHANICAL DETAILS

Packaging Options: Plastic case

I/O Connections: Flying leads, 18 AWG on power leads, 152 mm long, 105°C rated, stranded, stripped by approximately 9.5mm, and tinned. All the wires, on both input and output, have a 300 V insulation rating.

Ingress Protection: IP64 rated

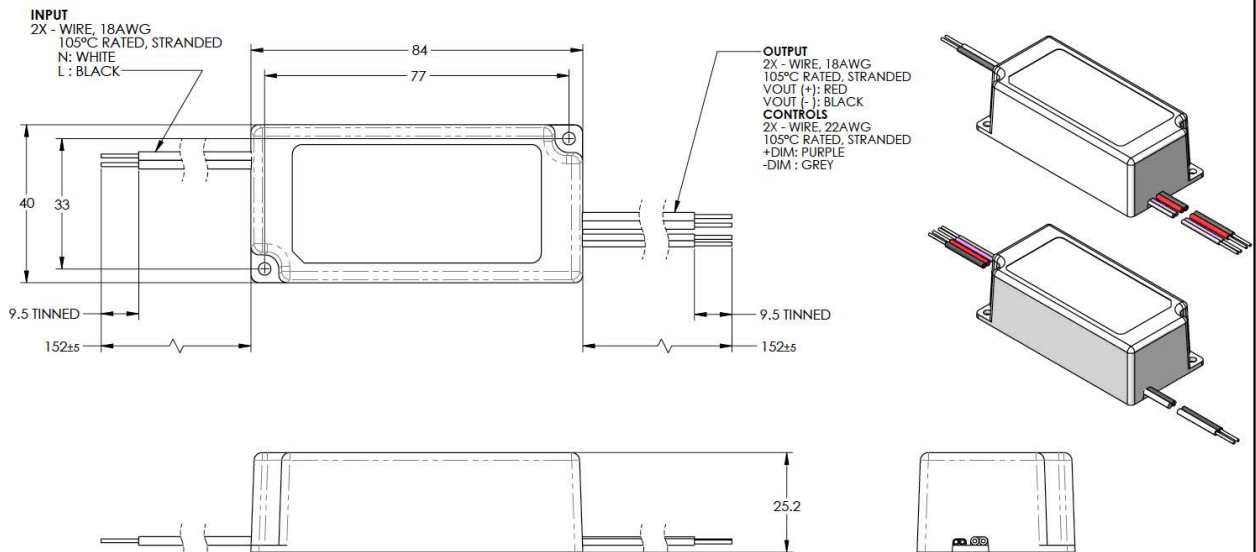
Flammability Rating: UL94 V-0 (5VA available upon request)

12 - OUTLINE DRAWINGS

Dimensions: L 84 x W 40 x H 25.2 mm (L 3.30 x W 1.57 x H 0.99 in)

Volume: 84.7 cm³ (5.16 in³)

Weight: 154 g (5.4 oz)



All dimensions are in mm

Figure 7

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

RDA4L230K27D2FX4WHT-P2CW MUST CLEARLY
STATE COMPATIBLE WITH 1% DIMMING

Notes:

Type:**RJ4**

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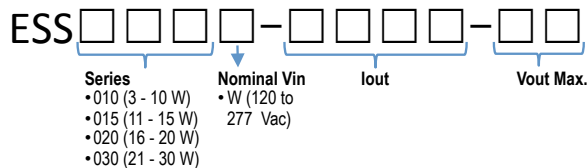
ENERGY RECOVERY PRODUCTS™



ESS010 3-10 W
ESS015 11-15 W
ESS020 16-20 W
ESS030 21-30 W

Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

13 - ORDERING INFORMATION - MODEL DESCRIPTION



ERP Part Number	Nominal Input Voltage (Vac)	Iout (mA)	Max Output Power (W)	Vout Min (Vdc)	Vout Nom (Vdc)	Vout Max (Vdc)	No Load Voltage (Vdc)
ESS010W: up to 10W							
ESS010W-0250-42	120 - 277	250	10.5	24	37.8	42	50
ESS015W: 11-15W							
ESS015W-0300-42	120 to 277	300	12.6	24	37.8	42	50
ESS015W-0350-32	120 to 277	350	11.2	21	28.8	32	41.6
ESS015W-0350-42	120 to 277	350	14.7	24	37.8	42	50
ESS020W-0350-56	120 to 277	350	19.6	40	50.4	56	60
ESS015W-0440-34	120 to 277	440	15.0	19	30.6	34	44.2
ESS020W: 16-20W							
ESS020W-0450-42	120 to 277	450	18.9	24	37.8	42	50
ESS020W-0500-32	120 to 277	500	16.0	21	28.8	32	41.6
ESS020W-0600-27	120 to 277	600	16.2	20	24.3	27	35
ESS020W-0700-24	120 to 277	700	16.8	14	21.6	24	31.2
ESS030W: 21-30W							
ESS030W-0500-42	120 to 277	500	21.0	24	37.8	42	50
ESS030W-0550-42	120 to 277	550	23.1	24	37.8	42	50
ESS030W-0620-42	120 to 277	620	26.0	24	37.8	42	50
ESS030W-0700-32	120 to 277	700	22.4	21	28.8	32	41.6
ESS030W-0700-39	120 to 277	700	27.3	27	35.1	39	50.7
ESS030W-0700-42	120 to 277	700	29.4	24	37.8	42	50
ESS030W-0900-27	120 to 277	900	24.3	20	24.3	27	35
ESS030W-1100-27	120 to 277	1100	29.7	20	24.3	27	35

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERPpowerLLC.com

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

RDA4L230K27D2FX4WHT-P2CW MUST CLEARLY
STATE COMPATABLE WITH 1% DIMMING

Notes:**Type:****RJ4**

LAI16-104794



ENERGY RECOVERY PRODUCTS™



ESS010	3-10 W
ESS015	11-15 W
ESS020	16-20 W
ESS030	21-30 W

Dual Dimming (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

■ 14 - LABELING

The ESS030W-0700-42 is used in figure 8 as an example to illustrate a typical label.

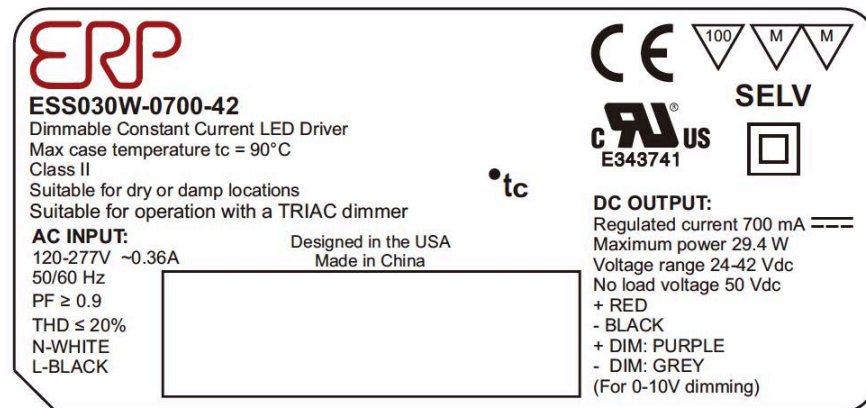


Figure 8

USA Headquarters

Tel: +1-805-517-1300
Fax: +1-805-517-1411
301 Science Drive, Suite 210
Moorpark, CA 93021, USA

CHINA Operations

Tel: +86-756-6266298
Fax: +86-756-6266299
No. 8 Pingdong Road 2
Zhuhai, Guangdong, China 519060

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) 22GRRA-LD4-32-F1-UNV-L835-
HCD1-PAF-U (4) EQ-CLIP-U

Notes:

Type:**RK2**

LAI16-104794

COOPER LIGHTING - METALUX®

**DESCRIPTION**

GRLED is a recessed lensed troffer series which offers a high quality luminaire dedicated with the latest solid state lighting and electronic driver technology for optimal performance and energy efficiency. The GRLED is compatible with all of today's popular ceiling systems and is available with a number of shielding options and accessories for application versatility.

The GRLED series features efficiency, quality and performance. The series is an excellent choice for commercial office spaces, schools, hospitals or retail merchandising areas.

SPECIFICATION FEATURES**Construction**

Rigid housing is die formed of code gauge prime cold rolled steel and features full length die-formed stiffeners and unibody endplate for added strength. Side flanges are hemmed. Innovative design provides superior lens brightness uniformity and visual comfort. Unibody endplates are securely attached with interlocking tabs and screws. Four auxiliary fixture end suspension points provided. Gridlock feature for safety and convenience.

Controls

The GRLED is equipped standard with a 0-10V continuous dimming driver that works with any standard 0-10V control/dimmer. Combine with energy-saving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Controls (www.coopercontrol.com) to maximize energy savings.

Electrical

Long-Life LED system coupled with electrical driver to deliver optimal performance. LED's available in 3000K, 3500K, 4000K or 5000K with typical CRI 85. Projected life is 60,000 hours at 70% lumen output. cULus listed. Electronic drivers are available for 120-277V applications. A 0-10V dimming driver is standard.

Finish

Multistage, iron phosphate pretreatment ensures maximum bonding and rust inhibition. Housing and driver cover finished with new 90% reflective white enamel for superior performance. "PAF" Painted After Fabrication option also available.

Hinging/Latching

Positive spring loaded steel latches with baked white enamel finish. Safety-lock T-hinges allow hinging and latching either side.

Frame/Optical Shielding

Die formed, flat steel door with frost #12 pattern acrylic prismatic lens offering the balance of rigidity and light stability. Primary stocking skus come standard with robust - .125 lens.

Compliance

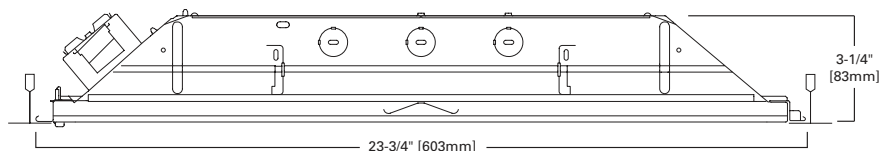
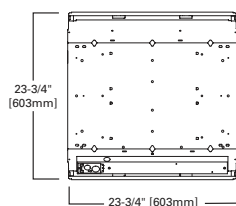
Modules are UL recognized components and indoor luminaires are cULus listed for 25°C ambient environments, RoHS compliant, and LED modules comply with IESNA LM-79 and LM-80 standards. DesignLights Consortium® Qualified.



22GR LED

2' X 2' LED TROFFER

General Recessed LED
Troffer
For Use in Insulated
Ceilings

**MOUNTING DATA****DOOR FRAMES****WATTAGE**

Lumens Package	Wattage
2000	20W
2400	23W
2800	28W
3200	33W
3600	38W
4000	45W
4300	50W

CEILING COMPATIBILITY

G	G	G	Ceiling Type	Trim Type
Grid/Lay-in Standard	Concealed T	Slot Grid	Exposed Grid	G
			Concealed T	G
			Slot Grid	G
(Verify compatibility/ consult factory.)				

Cooper Lighting
by **EATON**

LINEAR DISCONNECT
Safe and convenient means of
disconnecting power



ADF150148
2015-02-13 16:53:36

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

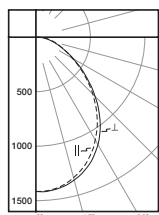
Catalog Number:

(1) 22GRRA-LD4-32-F1-UNV-L835-
HCD1-PAF-U (4) EQ-CLIP-U

Notes:

Type:**RK2**

LAI16-104794

22GRLED**PHOTOMETRICS****22GR-LD4-32-F1-UNV-L835-CD1-U**

Dimming Driver

Linear LED 3500K

Spacing criterion:

(II) 1.1 x mounting

height, (L) 1.2 x

mounting height

Lumens: 3212

Input Watts: 33.2W

Efficacy: 96.7 lm/W

Test Report:

22GR-LD4-32-F1-

UNV-L835-CD1-U.IES

Candlepower

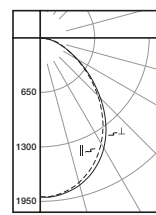
Angle	Along II	45°	Across ⊥
0	1411	1411	1411
5	1404	1401	1410
10	1377	1377	1389
15	1328	1334	1350
20	1264	1273	1295
25	1180	1196	1223
30	1080	1101	1131
35	973	992	1020
40	853	867	893
45	730	739	757
50	604	611	624
55	486	489	503
60	378	379	390
65	295	286	293
70	226	211	218
75	170	155	155
80	119	106	103
85	65	55	54
90	0	0	0

Coefficients of Utilization

rc rw RCR		Effective floor cavity reflectance																											
		80%					70%					50%					30%					10%					0%		
		70	50	30	10	0	70	50	30	10	0	50	30	10	0	50	30	10	0	50	30	10	0	50	30	10	0	0	0
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
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0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
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0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
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0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
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0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
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0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8																					

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1061	33.0
0-40	1680	52.3
0-60	2691	83.8
0-90	3212	100.0
0-180	3212	100.0

**22GR-LD4-43-F1-UNV-L835-CD1-U**

Dimming Driver

Linear LED 3500K

Spacing criterion:

(II) 1.2 x mounting

height, (L) 1.2 x

mounting height

Lumens: 4310

Input Watts: 50.5W

Efficacy: 85.3 lm/W

Test Report:

22GR-LD4-43-F1-

UNV-L835-CD1-U.IES

Candlepower

Angle	Along II	45°	Across ⊥
0	1892	1892	1892
5	1884	1879	1892
10	1845	1846	1863
15	1782	1788	1814
20	1693	1708	1739
25	1582	1604	1639
30	1452	1477	1516
35	1306	1327	1368
40	1142	1161	1199
45	976	991	1020
50	808	821	842
55	651	653	672
60	509	511	523
65	392	384	393
70	302	285	290
75	230	208	209
80	160	141	140
85	88	75	71
90	0	0	0

Coefficients of Utilization

Requirements of Utilization																														
rc rw RCR	Effective floor cavity reflectance												20%				50%				30%				10%				0%	
	80%				70%				50%				30%				10%				0%									
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	0		
0	119	119	119	119	116	116	116	116	111	111	111	111	111	106	106	106	106	102	102	102	100									
1	110	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73												
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	62												
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	54												
5	78	66	58	52	76	65	57	51	63	56	51	61	55	50	59	54	50	48												
6	73	60	52	45	71	59	51	45	57	50	45	56	49	45	54	49	44	42												
7	68	55	46	41	66	54	46	40	53	45	40	51	45	40	50	44	40	38												
8	63	50	42	36	62	50	42	36	48	41	36	47	41	36	46	40	36	34												
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31												
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28												

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1423	33.0
0-40	2254	52.3
0-60	3611	83.8
0-90	4310	100.0
0-180	4310	100.0

ORDERING INFORMATION

SAMPLE NUMBER: 22GR-LD4-27-F1-UNV-L835-CD1-U

HCD = 1% DIMMING DRIVER

Rating Blank=Standard ATW-SW4=Chicago Rated Width / Length 22=2' x 2' Trim Type⁽⁶⁾ G=Grid/lay-in/Standard ⁽¹⁰⁾ G=Concealed T G=Slot Grid Series R=General Purpose Troffer	LED Type LD4=LED 4.0 LED Lumens Output⁽⁵⁾ Stock 24=2400 32=3200 43=4300 MTO 20=2000 28=2800 36=3600 40=4000 Shielding F1=A12 .125 HP (Standard) A=A12 .095 A125=A12 .125	Voltage⁽²⁾ UNV=Universal Voltage 120-277 ⁽¹⁰⁾ Options GL=Single Element Fuse GM=Double Element Fuse Emergency EL=Emergency Installed, 700 Lumens ^{(4), (9)} EL14=Emergency Installed, 1400 Lumens ^{(4), (9)} EL10W=Emergency Installed, 10 Watts ⁽¹⁰⁾ CCT L830=3000K L835=3500K L840=4000K L850=5000K Flex Multiple Configurations Available	Driver Type CD=0-10V Dimming Driver SD=Step-Dim (Bi Level) ⁽¹¹⁾ 5LTD=Fifth Light (DALI) Driver ⁽¹¹⁾ Number of Drivers 1=1 Driver	Options PAF=Painted After Fabrication G1=Gasket, Door Frame and Housing G2=G1 plus Gasket between Lens and Door G3=G1 and G2 plus Gasketing on Mounting Surface of Fixture Trims ^{(7), (8)}	Packaging U=Unit Pack PALC=Palletized Fixtures In Carton
---	---	---	---	---	---

Door Frame
 Standard=Flat White Steel Door (Leave Blank)
 FA=Flush White Extruded Aluminum c/w Spring Latch
 RA=Regressed White Extruded Aluminum
 FAN=Flush Natural Anodized Extruded Aluminum
 RAN=Regressed Natural Anodized Extruded Aluminum
 FAB=Flush Black Extruded Aluminum
 RAB=Regressed Black Extruded Aluminum

ACCESSORIES

EQ-CLIP-U=T-BAR Safety Earthquake Clips⁽¹⁾
DF-22-W=2' x 2' Drywall Frame Kit

NOTES: ⁽¹⁾ An EQ Grid Clip is recommended for all 9/16" ceiling systems. ⁽²⁾ Products also available in non-US voltages and frequencies for international markets. ⁽³⁾ Not available when specifying emergencies, voltage must be specific. ⁽⁴⁾ EL options are non-integral. ⁽⁵⁾ Nominal lumen output. ⁽⁶⁾ Gasketing only available with aluminum door frame. ⁽⁷⁾ Gasketing minimum, 125. ⁽⁸⁾ Must specify voltage (120V or 277V) when selecting EL option. ⁽⁹⁾ For delivered lumens, take lumens per watt of desired fixture and multiply by 10 watts (100 lp/W x 10 = 1000 lumens delivered). ⁽¹⁰⁾ Step-Dim (Bi-Level) and Fifth Light (DALI) only available for 3,200 lumen and above.

Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.

SHIPPING DATA

Catalog No.	Wt.	Pallet
22GR-LD4-32	10 lbs.	48
22GR-LD4-43	10 lbs.	48

Cooper Lighting
by **E.T.N.**

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Cooper Lighting Business
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

Specifications and
dimensions subject to
change without notice.

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22GRLED

ENERGY AND PERFORMANCE DATA BY CATALOG NUMBER

Stock or MTO*	Catalog Logic	Delivered Lumens	Watts	Efficacy (LPW)
MTO	22GR-LD4-20-F1-UNV-L835-CD1-U	2084	20.10	103.68
Stock	22GR-LD4-24-F1-UNV-L835-CD1-U	2432	23.78	102.27
MTO	22GR-LD4-28-F1-UNV-L835-CD1-U	2804	28.13	99.68
Stock	22GR-LD4-32-F1-UNV-L835-CD1-U	3212	33.15	96.89
MTO	22GR-LD4-36-F1-UNV-L835-CD1-U	3598	38.86	92.59
MTO	22GR-LD4-40-F1-UNV-L835-CD1-U	4016	45.31	88.63
Stock	22GR-LD4-43-F1-UNV-L835-CD1-U	4310	50.43	85.47

*Made to order (MTO) requires a typical four week lead time.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LDA4A13835D010TE LAR35FL
4LA1WWF

Notes:

Type:**RL**

LAI16-104794

Portfolio**DESCRIPTION**

Low brightness 4-1/2" aperture LED adjustable accent fixture with choice of distribution. Adjustment mechanism enables the LED beam to pivot through the center of the aperture at the ceiling line, allowing maximum light output with no flashback. Offered with flat cut, adjustable accent, pinhole, and lensed wall wash trims.

Catalog #	Type
Project	
Comments	
Prepared by	

SPECIFICATION FEATURES**Lower Reflector**

Spun 0.050" aluminum. Available in a variety of Alzak® and painted finishes. Two torsion springs pull trim tight to ceiling. Truncated adjustable cut cone allows for full tilt range and flexibility. Lensed wall wash provides even illumination on vertical surfaces. Pinhole includes black oculus to control glare.

Upper Reflector

Field interchangeable optics in 15°, 25° or 35° provides smooth beam without color separation. Media holder fits onto upper reflector and holds up to two lens media.

Trim Ring

Self flanged or white polymer trim ring.

Adjustment Mechanism

Stable aiming and locking mechanism allows smooth 362° rotation and 40° elevation adjustment. Aiming scale enables consistent setting across multiple fixtures.

Housing

One piece die cast 1-1/4" deep collar. 18 gauge CRS housing is painted matte black to eliminate

stray light. Housing is toolless top accessible.

Universal Mounting Bracket

Accepts 1/2" EMT, C Channel, T bar fasteners and hanger bars. Provides 5" total adjustment.

Thermal

Aluminum heat sink conducts heat away from the LED module for optimal performance and longer life.

LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses.

Driver

Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, or DMX. Driver can be serviced from above or through the aperture.

Code Compliance

Thermally protected and cULus listed for damp locations with flat cut, pinhole or angle cut and wet location covered ceiling with lensed or lensed wall wash. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. 2800 lumen Non-IC rated - Insulation must be kept 3" from top and sides of housing. IC rated up to 1800 lumen. RoHS Compliant. 2800 lumen and above spacing and must follow spacing requirements. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

Warranty

5 year warranty.

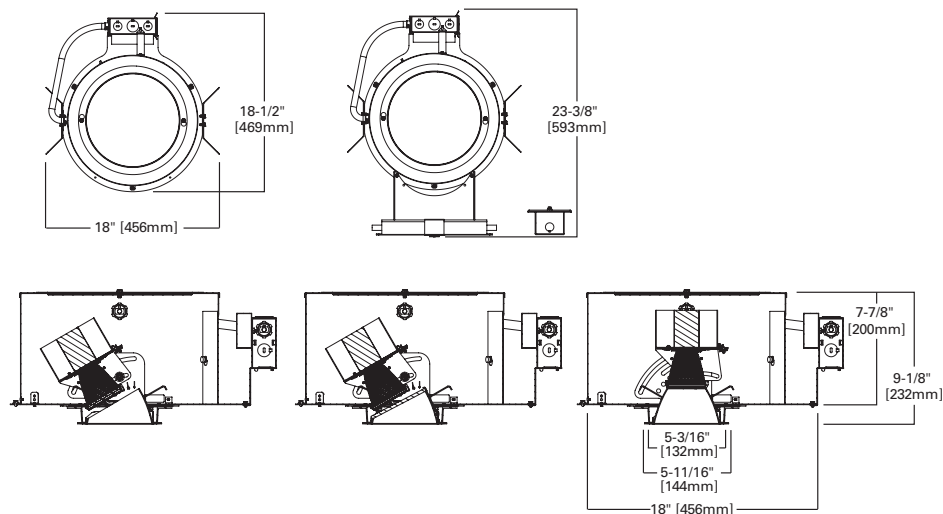
**LDA4A 4L**

900, 1300, 1800, 2800 Lumen LED

4-Inch
Adjustable
Slope
Wall Wash

New Construction

ENERGY DATA		
Sound Rating: Class A standards		
T ambient: -40 ~ 40°C		
Power Factor: >0.90		
THD < 20%		
900 Lumen		
	120V	277V
Input Power	13.8W	15.0W
Input Current	0.12A	0.06A
Inrush Current	0.49A	0.85A
1300 Lumen		
	120V	277V
Input Power	22.9W	22.9W
Input Current	0.19A	0.09A
Inrush Current	0.72A	0.53A
1800 Lumen		
	120V	277V
Input Power	29.1W	29.4W
Input Current	0.24A	0.12A
Inrush Current	0.79A	1.09A
2800 Lumen		
	120V	277V
Input Power	44.5W	44.2W
Input Current	0.37A	0.17A
Inrush Current	1.09A	1.23A



Refer to ENERGY STAR® Qualified Products List.

powered by
fifthlight
technology

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LDA4A13835D010TE LAR35FL
4LA1WWF

Notes:

Type:**RL**

LAI16-104794

LDA4A 4L

ORDERING INFORMATION**Example:**

LDA4A09835D010TE LAR25NF 4LLWW1LI = 4" LED, 900 Lumen, Narrow Flood, 90CRI, 3500K, Self Flanged, Lensed Wall Wash

Housing	Lumens ¹	CRI	CCT	Driver	Options ^{3,7}
LDA4A=4" Aperture adjustable/slope	09=900 (IC Rated)	8=80 CRI 9=90 CRI	27=2700 30=3000 35=3500 40=4000	900, 1300, 1800 and 2800 Lumen D010TE=120-277V 0-10V 10% dimming or trailing edge 120V D5LT=120-277V Fifth Light DALI 0% dimming DE010=120-277V 0-10V 1% dimming DL3=120-277V, 1-100% Lutron dimming DLT=Hi-Lume Forward Phase 2-wire dimming 120V DMX=120-277V DMX 0% dimming	EMBOD=7W Bodine® Emergency Module with Remote Test Switch EM7=7W Emergency Module with Remote Test Switch EM14=14W Emergency Module with Remote Test Switch
LDA4ACP=4" Aperture adjustable/slope, Chicago Plenum	13=1300 (IC Rated) 18=1800 (IC Rated) 28=2800 (Non-IC) ⁶			900, 1300 and 1800 Lumen D010TR=120-277V 0-10V 10% dimming or leading edge 120V	

BEAM FORMING REFLECTOR

LAR15SP=15° Reflector

LAR25NF=25° Reflector

LAR35FL=35° Reflector

Reflector	Finish	Options	Accessories
4LA0=4" Adjustable Accent, Polymer Trim Ring 4LA1=4" Adjustable Accent, Self Flanged 4LLWW0=4" Lensed Wall Wash, Polymer Trim Ring 4LLWW1=4" Lensed Wall Wash, Self Flanged 4LAL0=4" Lensed Adjustable Accent, Polymer Trim Ring 4LAL1=4" Lensed Adjustable Accent, Self Flanged 4LFC0=Flat Cut Cone, Polymer Trim Ring 4LFC1=Flat Cut Cone, Self Flanged 4LAPIN=4" Pinhole ⁴	L=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White	Self-Flanged Only WF=White Painted Flange	HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long, Pair H347=347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA TRM4P=Metal Trim Ring, White ² TRM4MB=Metal Trim Ring, Black ² TRR4=Rimless Trim Ring ² LGSKT4IP66=IP66 Gasket Kit ⁵ <u>Color Filters</u> F22-20=Red F33-20=Blue F44-20=Green F55-20=Yellow F66-20=Mercury <u>Dichronic Filters</u> F71-20=Peach F72-20=Amber F73-20=Green F74-20=Medium Blue F75-20=Yellow F76-20=Red F77-20=Dark Blue F78-20=Light Blue F79-20=Neutral Density F80-20=Magenta <u>Beam-Modifying Lenses</u> LSL20=Linear Spread Lens OSL20=Overall Spread Lens DIF-20=Diffused Lens <u>Louvers</u> LVR-20=Hex Cell Louver <u>Snoot</u> PLNC-SN-B=Snoot

- Notes:**
- 1 Nominal Lumens will vary depending on selected color, driver and reflector finish.
 - 2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).
 - 3 Not available with Chicago Plenum and requires above ceiling access. Not for use with insulation.
 - 4 Pinhole finish standard white with black occlusus (omit finish code).
 - 5 Required for T-24 compliance with lensed trims.
 - 6 Product is marked spacing and must be installed with the following minimum spacing:
Center to center of adjacent luminaires: 36"
Center of luminaire to side of building member: 18"
Minimum overhead clearance: 1/2"
 - 7 Not CSA approved.

EM MULTIPLIER DATA

LUMENS	EM MULTIPLIER	
	7	14
900/1000	0.50	0.99
1300/1500	0.29	0.57
1800/2000	0.22	0.44
2800/3000	0.16	0.32

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LDA4A13835D010TE LAR35FL
4LA1WWF

Notes:

Type:**RL**

LAI16-104794

LDA4A 4L

PHOTOMETRICS

Test Number P170903 Housing LDA4A18835D010TE Trim LAR15SP 4LA1 30° Tilt Lumens 1611 Lm Efficacy 55.3 Lm/W	CANDLEPOWER DISTRIBUTION	CONE OF LIGHT	CONE OF LIGHT	CANDELA TABLE	ZONAL LUMEN SUMMARY
	Directional	Horizontal	Vertical	Degrees Vertical Candela	Zone Lumens %Fixture
				0 94	0-30 714 44.3
				5 420	
				15 2152	0-40 1329 82.5
				25 7782	
				35 8815	0-60 1604 99.6
				45 2530	
				55 115	0-90 1611 100
				65 6	
				75 0	90-180 0 0
				85 0	
				90 0	0-180 1611 100

Test Number P170583 Housing LDA4A18835D010TE Trim LAR15SP 4LFC1 Lumens 1910 Lm Efficacy 65.6 Lm/W SC 0.32	CANDLEPOWER DISTRIBUTION	CONE OF LIGHT	CANDELA TABLE	ZONAL LUMEN SUMMARY
	Downlight		Degrees Vertical Candela	Zone Lumens %Fixture
			0 12099	0-30 1894 99.1
			5 10191	
			15 2956	0-40 1908 99.9
			25 357	
			35 18	0-60 1910 100
			45 2	
			55 0	0-90 1910 100
			65 0	
			75 0	90-180 0 0
			85 0	
			90 0	0-180 1910 100

Test Number P170167 Housing LDA4A18835D010TE Trim LAR15SP 4LPIN Lumens 738 Lm Efficacy 25.3 Lm/W SC 0.34	CANDLEPOWER DISTRIBUTION	CONE OF LIGHT	CANDELA TABLE	ZONAL LUMEN SUMMARY
	Downlight		Degrees Vertical Candela	Zone Lumens %Fixture
			0 6521	0-30 737 99.8
			5 5842	
			15 767	0-40 738 100
			25 19	
			35 1	0-60 738 100
			45 0	
			55 0	0-90 738 100
			65 0	
			75 0	90-180 0 0
			85 0	
			90 0	0-180 738 100

Test Number P170679 Housing LDA4A18835D010TE Trim LAR25NF 4LA1 30° Tilt Lumens 1750 Lm Efficacy 60.1 Lm/W	CANDLEPOWER DISTRIBUTION	CONE OF LIGHT	CONE OF LIGHT	CANDELA TABLE	ZONAL LUMEN SUMMARY
	Directional	Horizontal	Vertical	Degrees Vertical Candela	Zone Lumens %Fixture
				0 116	0-30 769 44
				5 502	
				15 2876	0-40 1389 79.4
				25 6342	
				35 6772	0-60 1742 99.6
				45 3335	
				55 216	0-90 1750 100
				65 9	
				75 0	90-180 0 0
				85 0	
				90 0	0-180 1750 100

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LDA4A13835D010TE LAR35FL
4LA1WWF

Notes:

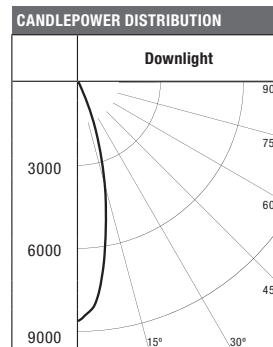
Type:**RL**

LAI16-104794

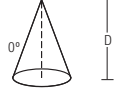
LDA4A 4L

PHOTOMETRICS

Test Number	P170615
Housing	LDA4A18835D010TE
Trim	LAR25NF 4LFC1
Lumens	2070 Lm
Efficacy	71.1 Lm/W
SC	0.46

CONE OF LIGHT



MH	FC	L	W
5.5'	287	2.4	2.4
7'	177	3.0	3.0
8'	136	3.6	3.6
9'	107	4.0	4.0
10'	87	4.4	4.4
12'	60	5.4	5.4

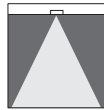
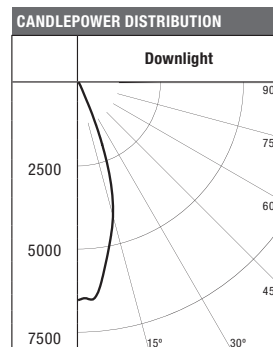
CANDELA TABLE

Degrees Vertical	Candela
0	8687
5	7947
15	3834
25	465
35	28
45	3
55	0
65	0
75	0
85	0
90	0

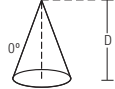
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30	2044	98.8
0-40	2067	99.9
0-60	2070	100
0-90	2070	100
90-180	0	0
0-180	2070	100

Test Number	P170647
Housing	LDA4A18835D010TE
Trim	LAR35FL 4LFC1
Lumens	2153 Lm
Efficacy	73.9 Lm/W
SC	0.6

CONE OF LIGHT



D	FC	L	W
5.5'	219	3.2	3.2
7'	135	4.0	4.0
8'	104	4.6	4.6
9'	82	5.2	5.2
10'	66	5.8	5.8
12'	46	7	7

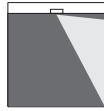
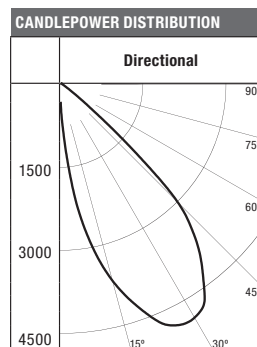
CANDELA TABLE

Degrees Vertical	Candela
0	6625
5	6511
15	4203
25	623
35	34
45	2
55	0
65	0
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

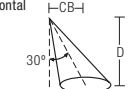
Zone	Lumens	%Fixture
0-30	2121	98.5
0-40	2150	99.9
0-60	2153	100
0-90	2153	100
90-180	0	0
0-180	2153	100

Test Number	P174896
Housing	LDA4A18835D010TE
Trim	LAR35FL 4LA1 30° Tilt
Lumens	1843 Lm
Efficacy	63.3 Lm/W

CONE OF LIGHT

Horizontal



MH	FC	L	W	CB
5.5'	45	5.3	4.6	3.2
7'	28	6.9	5.8	4
8'	21	7.8	6.8	4.6
9'	17	8.8	7.6	5.2
10'	14	9.8	8.4	5.8
12'	10	11.8	10.2	6.9

CONE OF LIGHT

Vertical



D	FC	L	W	CB
1'	3506	0.5	0.6	1.7
2'	876	1.2	1.2	3.5
3'	390	1.9	1.8	5.2
4'	219	2.5	2.6	6.9
5'	140	3.2	3.2	8.7
6'	97	3.9	3.8	10.4

CANDELA TABLE

Degrees Vertical	Candela
0	342
5	1432
15	3794
25	4914
35	4619
45	2960
55	129
65	4
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30	948	51.4
0-40	1514	82.1
0-60	1837	99.7
0-90	1843	100
90-180	0	0
0-180	1843	100

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

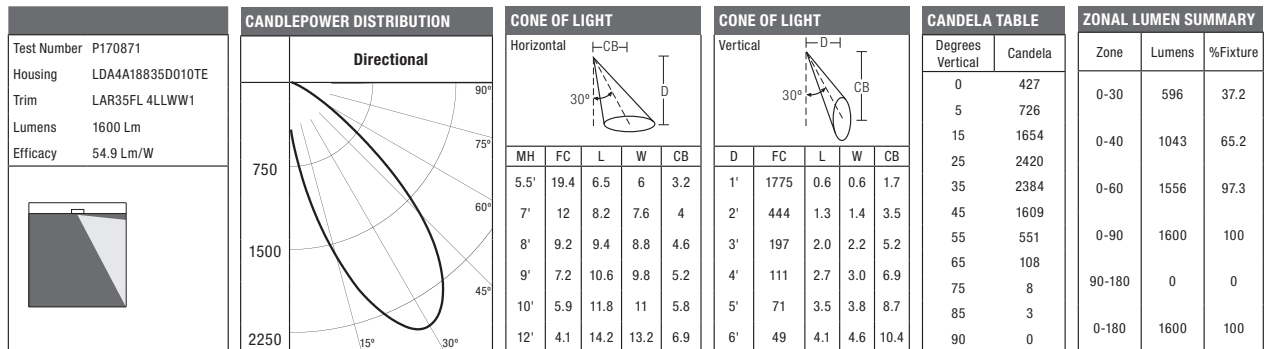
LDA4A13835D010TE LAR35FL
4LA1WWF

Notes:

Type:**RL**

LAI16-104794

LDA4A 4L

PHOTOMETRICS

SINGLE UNIT FOOTCANDLES								MULTIPLE UNIT FOOTCANDLES											
2' FROM WALL (Distance From Fixture Along Wall)								2' FROM WALL (Spacing Between Fixtures)						3' FROM WALL (Spacing Between Fixtures)					
DD	●	1'	2'	3'	4'	5'	6'	●	2' apart	●	●	2' apart	●	●	3' apart	●	●	3' apart	●
1'	26.7	10.8	1.2	0.1	0	0	0	27.9	21.6	27.9	2.3	1.5	2.3	31.9	26.3	31.9	69.9	62.3	69.9
2'	142.2	70.1	15	2.7	0.5	0.1	0	157.2	140.1	157.2	64.7	51.4	64.7	69.9	62.3	69.9	64.7	51.4	64.7
3'	103.8	66.8	23.4	6.7	1.7	0.4	0.2	127.3	133.6	127.3	48.1	33.4	48.1	69.9	62.3	69.9	48.1	33.4	48.1
4'	55.3	41	19.8	8.1	2.8	0.9	0.4	75.1	82	75.1	33.4	24.9	33.4	69.9	62.3	69.9	33.4	24.9	33.4
5'	28.6	23.1	13.8	7.1	3.2	1.3	0.6	42.4	46.2	42.4	22.7	17	22.7	69.9	62.3	69.9	22.7	17	22.7
6'	15.6	13.3	9.1	5.5	2.9	1.5	0.8	24.7	26.6	24.7	15.7	11.8	15.7	69.9	62.3	69.9	15.7	11.8	15.7
7'	9.1	8	5.9	4.1	2.5	1.4	0.8	15	16	15	11.8	8.4	11.8	69.9	62.3	69.9	11.8	8.4	11.8
8'	5.6	5	4	2.9	2	1.2	0.8	9.5	10	9.5	7.8	5.6	7.8	69.9	62.3	69.9	7.8	5.6	7.8
9'	3.6	3.3	2.8	2.1	1.6	1.1	0.7	6.4	6.6	6.4	5.6	4.4	5.6	69.9	62.3	69.9	5.6	4.4	5.6
10'	2.4	2.2	1.9	1.6	1.2	0.9	0.7	4.4	4.5	4.4	4.4	3.6	4.4	69.9	62.3	69.9	4.4	3.6	4.4

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TB9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:**RM2 9/16 STD**

LAI16-104794

NOVA22 LED

RECESSED



Grid - shown with a Nova flat lens



Grid - shown with a Nova Slope lens

PROJECT: _____

APPROVED BY: _____

SIGNATURE: _____

TYPE

QTY

DESCRIPTION

Nova is an efficient architectural LED troffer with a distinctive luminous shielding that distributes gentle brightness from the sides of its central optical element. Using advanced LED engines, Nova provides highly efficient illumination and offers comprehensive ceiling, electrical, and controls options in 2x2, 1x4, and 2x4 sizes. Nova is available with both Flat and Slope side diffusers.

See separate spec sheets for other available mountings.

**up to 117 lm/w performance****IC RATED**

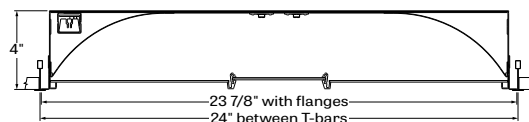
	22	PMO	HLO	LED			
LUMINAIRE ID	SIZE	CENTER OPTICS	SIDE OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
NOVRF - nova recessed flat	22 - 2'x2'	PMO - Precision	HLO - High-Efficiency	LED - high	80 - 80CRI	2300 - low output 2300lm	30 - 3000k
NOVRS - nova recessed slope		Micro-Prism Optic	Lambertian Optic	performance LED	90 - 90CRI	3200 - medium output 3200lm	35 - 3500k
						4200 - high output 4200lm	40 - 4000k

VOLTAGE	DRIVER	ELECTRICAL	MOUNTING	FINISH	CONTROLS
120 - 120V	D - dimming 0-10V	1 - 1 circuit	TG9 - tegular 9/16"	W - matte white	ONBOARD
277 - 277V	DA - Dali	+EB - emergency battery pack	TG15 - tegular 15/16"	CF# - custom finish	OMS - Motion Sensor & power pack
UNV - 120V-277V	LA2 - Lutron Hi-Lume A - 2 wires 120V	+EM - emergency light circuit	TB9 - t-bar 9/16"	specify RAL#	ODS - Daylight Sensor & controller
347 - 347V	LA3 - Lutron Hi-Lume A - 3 wires/EcoS	+NL - night light circuit	TB15 - t-bar 15/16"		WIRELESS
	LEH - Lutron EcoSystem H	+GTD - generator transfer device	ST - screw slot t-bar		EWC - EnOcean Wireless Controller
	LE5 - Lutron EcoSystem 5	+M - master (consult factory)	DF - drywall kit		LMC - Lutron Motion Controller
	OTH - other (consult factory)	+S - satellite (consult factory)			LDC - Lutron Daylight Controller

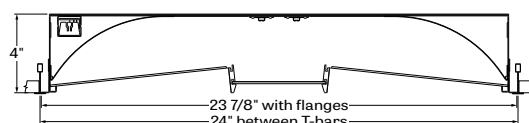
EQ-CLIPS**OPTIONS**

FU - fuse
FWC - flexible whip cable (6' std)
AR - air return (for grid only)
CP - Chicago Plenum
CU - custom

See page 4 for ordering code detailed information

CROSS SECTION

NOVRF - nova flat t-bar 9/16



NOVRS - nova slope t-bar 9/16

OPTICS

NOVRS - nova slope



NOVRF - nova flat

File Name: NOVA22-RECESSED-SPEC

Page: 1 / 6

August 7, 2016

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LumenWerx ULC. reserves the right to change or modify product specifications without notification



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TB9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 STD

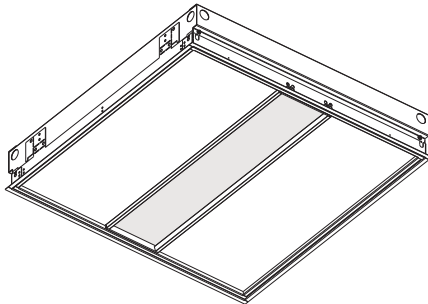
LAI16-104794

NOVA22 LED

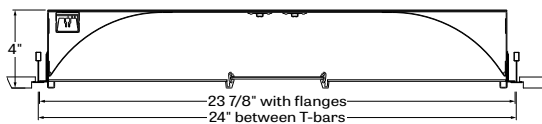
RECESSED



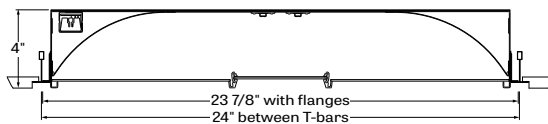
NOVA FLAT



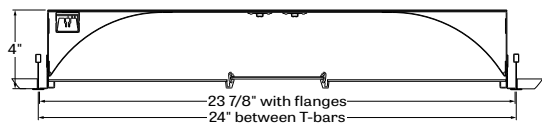
NOVA FLAT - TG9 - tegular 9/16"



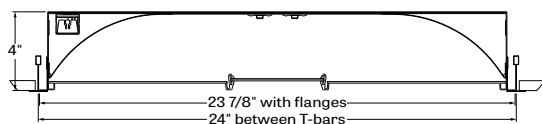
NOVA FLAT - TG15 - tegular 15/16"



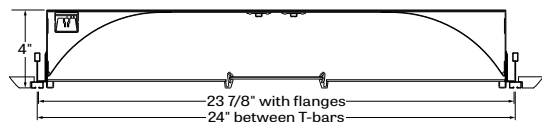
NOVA FLAT - TB9 - t-bar 9/16"



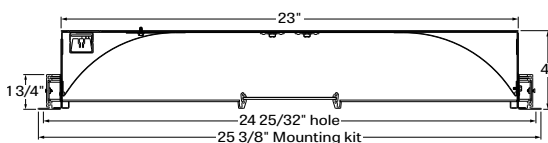
NOVA FLAT - TB15 - t-bar 15/16"



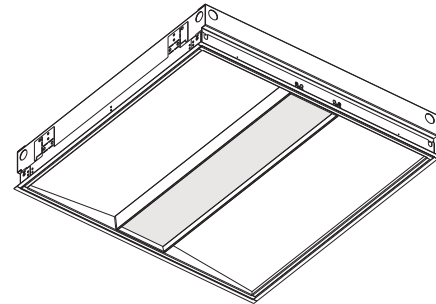
NOVA FLAT - ST- screw slot t-bar



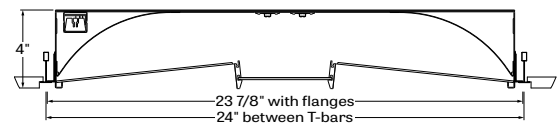
NOVA FLAT - DW- drywall kit



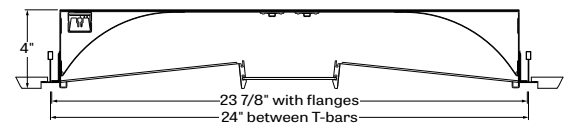
NOVA SLOPE



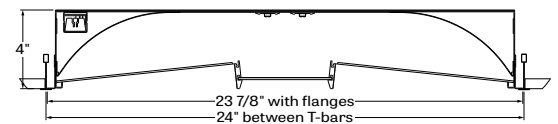
NOVA SLOPE - TG9 - tegular 9/16"



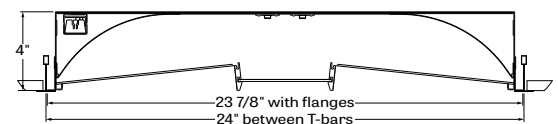
NOVA SLOPE - TG15 - tegular 15/16"



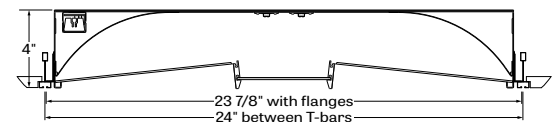
NOVA SLOPE - TB9 - t-bar 9/16"



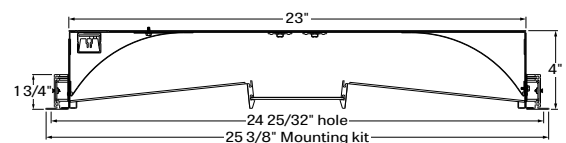
NOVA SLOPE - TB15 - t-bar 15/16"



NOVA SLOPE - ST- screw slot t-bar



NOVA SLOPE - DW- drywall kit



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
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(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TB9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 STD

LAI16-104794

NOVA22 LED

RECESSED



ELECTRICAL CIRCUITS

DIMMING 0-10V -

1 Circuit

1 CIRCUIT	BLK	HOT (CIRCUIT-1)
	WHT	NEUTRAL (CIRCUIT -1)
	GRN	GROUND
	PPL	DIM(+) 0-10V
	GRY	DIM(-) 0-10V

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 2 wires -

1 Circuit

1 CIRCUIT	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON ECOSYSTEM H -

1 Circuit

1 CIRCUIT	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

DIMMING 0-10V -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT (CIRCUIT-1)
	WHT	NEUTRAL (CIRCUIT -1)
	GRN	GROUND
	RED	UNSWITCHED HOT
	PPL	DIM(+) 0-10V
	GRY	DIM(-) 0-10V

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 2 wires -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	RED	UNSWITCHED HOT

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON ECOSYSTEM H -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	RED	UNSWITCHED HOT
	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 3 wires -

1 Circuit

1 CIRCUIT	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	ORG	HOT DIMMING
	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 3 wires -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	ORG	HOT DIMMING
	RED	UNSWITCHED HOT

ECOSYSTEM	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

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(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TB9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 STD

LAI16-104794

NOVA22 LED

RECESSED

**OPTICS**

CENTER LENS - PRECISION MICRO-PRISM-OPTIC (PMO) - utilizes a specially designed catadioptric lens that combines refraction and internal reflection. The square-base prism is 24% the size of those used in a high-performance fluorescent lens. The exclusive two-dimensional array of prisms is designed to eliminate the glare found at higher viewing angles and as such, enables a glare cut-off at a 45° viewing angle.

The acrylic material itself is untinted, relying entirely on catadioptric control for effective source obscuration. A highly efficient TIR process at the acrylic-air interface on the prism surfaces redirects incident light with less than a 0.1% loss per reflection. As a result, these LumenWerx optics attain a high optical efficiency greater than 90%, while maintaining visual comfort at normal viewing angles and presenting a pleasing luminous appearance.

SIDE LENS - HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO) - shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration.

LIGHT SOURCE - LED

Custom Linear array of mid-flux LED's are mounted directly to the housing for optimal thermal performance. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	20	2300	117
medium output	4000K	29	3200	112
high output	4000K	38	4200	110

ELECTRICAL

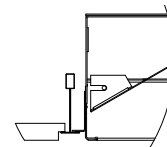
Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

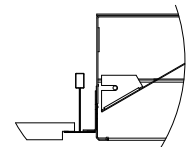
Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1300 lumens (25°C) emergency lighting output. Recharge time of 24 hours.

MOUNTING OPTIONS

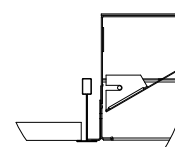
Recess mount into exposed or concealed T-Bar or
Tegular grid ceiling



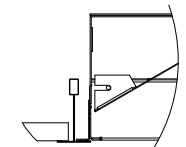
TG9 - tegular 9/16"



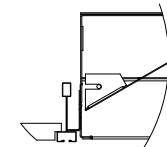
TG15 - tegular 15/16"



TB9 - t-bar 9/16"

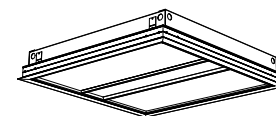
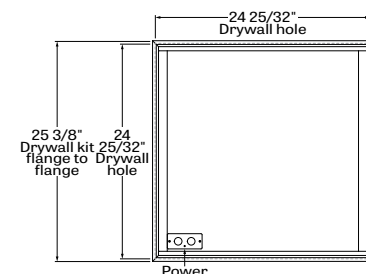


TB15 - t-bar 15/16"



ST - screw slot t-bar

A separate kit for mounting fixtures into drywall
ceilings



DF - drywall kit

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TB9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 STD

LAI16-104794

NOVA22 LED

RECESSED

**FINISH**

Interior reflectors - 95% reflective, matte white powder coating

Exterior - matte white powder coating.

Custom finish is also available.

CONTROLS

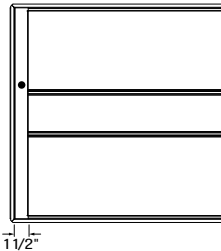
LumenWerx offers several options for integrating motion and daylight controls into NOVA luminaires. Wireless options incorporate a wireless controller/powerpack into the luminaire, which receives signals from a wireless sensor (by others) installed in the space. The advantages of the wireless option include greater flexibility of control options, sensor coverage, and system integration. Onboard options incorporate both the sensor and controller/powerpack. Onboard sensors, while inherently simpler, have limitations of control and coverage.

Onboard**Onboard Motion Sensor and power pack (OMS)**

provide automatic on and automatic off control, using PIR detection. Sensor is designed to detect fine-motion when installed within 6' of occupants.

Onboard Daylight Sensor and controller (ODS)

provide input for 0-10V dimming drivers. Separate switched control of line input is required for on/off control.



Location of an Onboard sensor

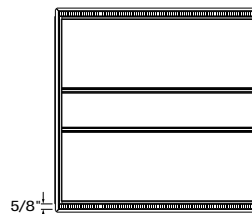
Wireless

EnOcean Wireless Controller (EWC) provides both a power pack for presence detection control and a 0-10V interface for daylight harvesting. EnOcean wireless sensors (by others) mounted in the room signal the onboard EWC. This option permits manual on/automatic off (vacancy) control.

Lutron Motion Controller (LMC) and **Lutron Daylight Controller (LDC)** provide inputs to Ecosystem drivers. Compatible Lutron wireless motion and daylight sensors (by others) mounted in the room signal onboard LPC or LDC. This option permits manual on/automatic off (vacancy) control.

OPTIONS

The air return option consists in a discreet, yet efficient, slot pattern integrated into the side flanges of the luminaire, allowing the airflow to exhaust into plenum space, creating a clean, pleasant look of the ceiling.



Air Return

CONSTRUCTION

Housing - Die formed cold rolled sheet steel 20 gauge thick, matte white powder coating.

Reflectors - Cold rolled steel 0.030" thick precisely die formed, 95% reflective matte white painted.

Interior brackets - Die formed cold rolled sheet steel 20 gauge thick.

Center basket - Extruded Aluminum 0.07" nominal, matte white and lens made in clear PMMA precisely formed into optical micro-structures forms.

Side lenses - Frost impact acrylic lens 88% transmissive.

Drywall kit - Extruded Aluminum 0.07" nominal, matte white powder coating.

WEIGHT

16.52lbs. +2.51lbs. (drywall kit) - 7.5kg +1.14kg (drywall kit)

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

DLC - Testing to DLC requirements, for this product, have been completed by an Accredited Laboratory and certified by DLC.

Lighting facts - testing products and reporting performance results according to industry standards.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TB9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 STD

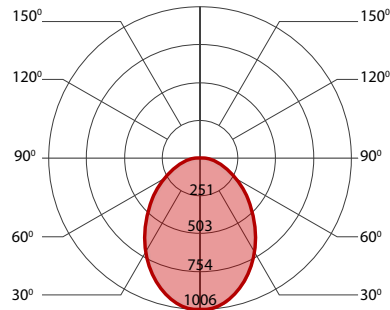
LAI16-104794

NOVA22 LED

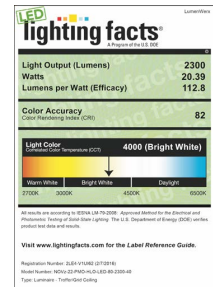
RECESSED

LUMENWERX
WWW.LUMENWERX.COM

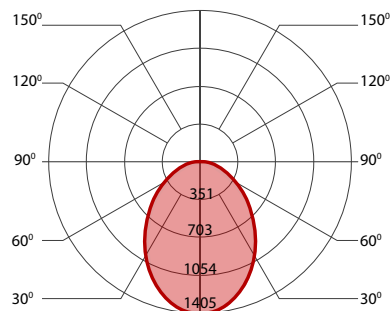
2300 LUMEN AT 80CRI - LOW OUTPUT

**PERFORMANCE**

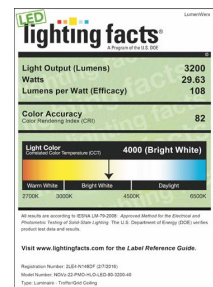
LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	2300	115
low output	3500K	20	2300	115
low output	4000K	20	2300	117



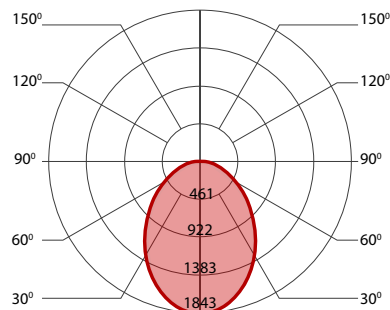
3200 LUMEN AT 80CRI - MEDIUM OUTPUT

**PERFORMANCE**

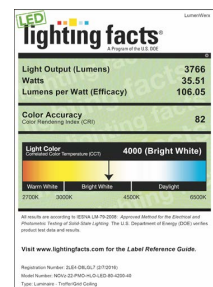
LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	29	3200	110
medium output	3500K	29	3200	110
medium output	4000K	29	3200	112



4200 LUMEN AT 80CRI - HIGH OUTPUT

**PERFORMANCE**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	39	4200	108
high output	3500K	39	4200	108
high output	4000K	38	4200	110



**Job Name:**

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SCIENCE BUILDING - FIXTURE QUOTE
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(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TG9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:**RM2 9/16 TEG**

LAI16-104794

NOVA22 LED**RECESSED**

Grid - shown with a Nova flat lens



Grid - shown with a Nova Slope lens

PROJECT: _____

APPROVED BY: _____

SIGNATURE: _____

TYPE

QTY

DESCRIPTION

Nova is an efficient architectural LED troffer with a distinctive luminous shielding that distributes gentle brightness from the sides of its central optical element. Using advanced LED engines, Nova provides highly efficient illumination and offers comprehensive ceiling, electrical, and controls options in 2x2, 1x4, and 2x4 sizes. Nova is available with both Flat and Slope side diffusers.

See separate spec sheets for other available mountings.

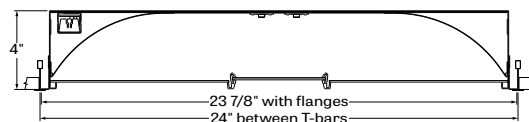
**up to 117 lm/w performance****IC RATED**

	22	PMO	HLO	LED			
LUMINAIRE ID	SIZE	CENTER OPTICS	SIDE OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
NOVRF - nova recessed flat	22 - 2'x2'	PMO - Precision	HLO - High-Efficiency	LED - high	80 - 80CRI	2300 - low output 2300lm	30 - 3000k
NOVRS - nova recessed slope		Micro-Prism Optic	Lambertian Optic	performance LED	90 - 90CRI	3200 - medium output 3200lm	35 - 3500k
						4200 - high output 4200lm	40 - 4000k

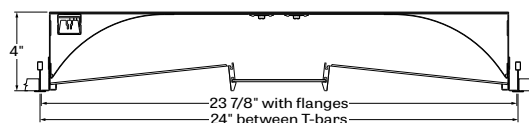
VOLTAGE	DRIVER	ELECTRICAL	MOUNTING	FINISH	CONTROLS
120 - 120V	D - dimming 0-10V	1 - 1 circuit	TG9 - tegular 9/16"	W - matte white	ONBOARD
277 - 277V	DA - Dali	+EB - emergency battery pack	TG15 - tegular 15/16"	CF# - custom finish	OMS - Motion Sensor & power pack
UNV - 120V-277V	LA2 - Lutron Hi-Lume A - 2 wires 120V	+EM - emergency light circuit	TB9 - t-bar 9/16"	specify RAL#	ODS - Daylight Sensor & controller
347 - 347V	LA3 - Lutron Hi-Lume A - 3 wires/EcoS	+NL - night light circuit	TB15 - t-bar 15/16"		WIRELESS
	LEH - Lutron EcoSystem H	+GTD - generator transfer device	ST - screw slot t-bar		EWC - EnOcean Wireless Controller
	LE5 - Lutron EcoSystem 5	+M - master (consult factory)	DF - drywall kit		LMC - Lutron Motion Controller
	OTH - other (consult factory)	+S - satellite (consult factory)			LDC - Lutron Daylight Controller

EQ-CLIPS**OPTIONS**

FU - fuse
FWC - flexible whip cable (6' std)
AR - air return (for grid only)
CP - Chicago Plenum
CU - custom

CROSS SECTION

NOVRF - nova flat t-bar 9/16



NOVRS - nova slope t-bar 9/16

OPTICS

NOVRS - nova slope



NOVRF - nova flat

File Name: NOVA22-RECESSED-SPEC

Page: 1 / 6

August 7, 2016

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(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TG9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 TEG

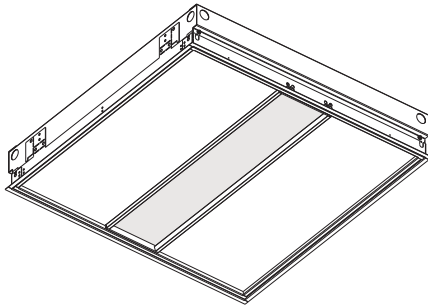
LAI16-104794

NOVA22 LED

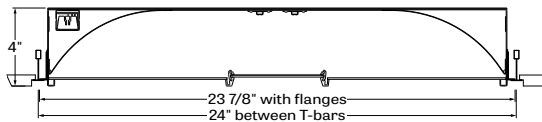
RECESSED

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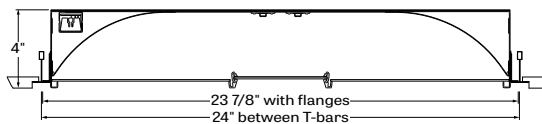
NOVA FLAT



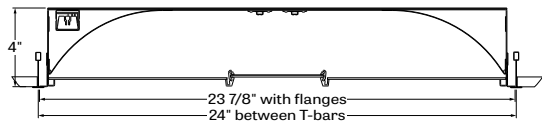
NOVA FLAT - TG9 - tegular 9/16"



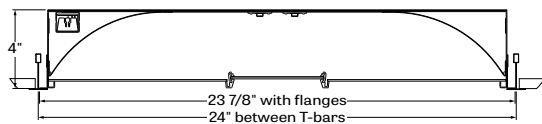
NOVA FLAT - TG15 - tegular 15/16"



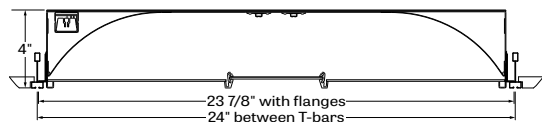
NOVA FLAT - TB9 - t-bar 9/16"



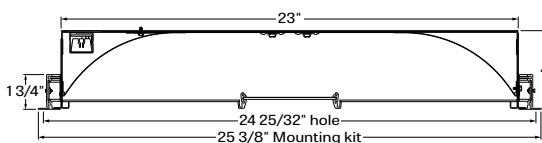
NOVA FLAT - TB15 - t-bar 15/16"



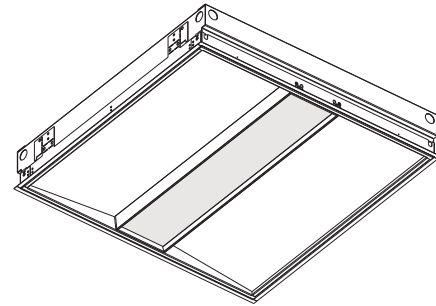
NOVA FLAT - ST- screw slot t-bar



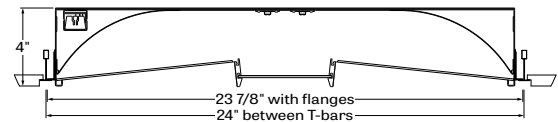
NOVA FLAT - DW- drywall kit



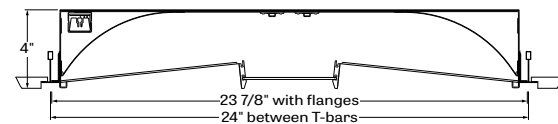
NOVA SLOPE



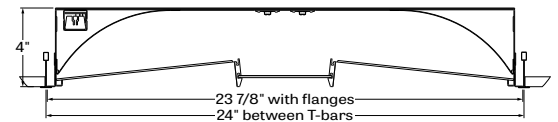
NOVA SLOPE - TG9 - tegular 9/16"



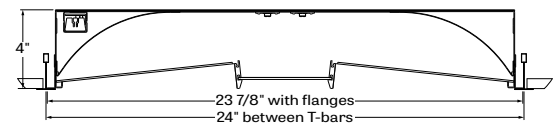
NOVA SLOPE - TG15 - tegular 15/16"



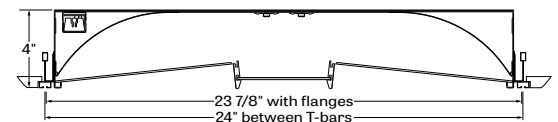
NOVA SLOPE - TB9 - t-bar 9/16"



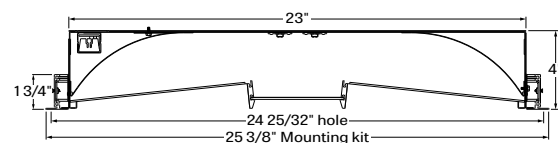
NOVA SLOPE - TB15 - t-bar 15/16"



NOVA SLOPE - ST- screw slot t-bar



NOVA SLOPE - DW- drywall kit



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TG9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 TEG

LAI16-104794

NOVA22 LED

RECESSED



ELECTRICAL CIRCUITS

DIMMING 0-10V -

1 Circuit

1 CIRCUIT	BLK	HOT (CIRCUIT-1)
	WHT	NEUTRAL (CIRCUIT -1)
	GRN	GROUND
	PPL	DIM(+) 0-10V
	GRY	DIM(-) 0-10V

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 2 wires -

1 Circuit

1 CIRCUIT	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON ECOSYSTEM H -

1 Circuit

1 CIRCUIT	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

DIMMING 0-10V -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT (CIRCUIT-1)
	WHT	NEUTRAL (CIRCUIT -1)
	GRN	GROUND
	RED	UNSWITCHED HOT
	PPL	DIM(+) 0-10V
	GRY	DIM(-) 0-10V

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 2 wires -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	RED	UNSWITCHED HOT

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON ECOSYSTEM H -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	RED	UNSWITCHED HOT
	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 3 wires -

1 Circuit

1 CIRCUIT	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	ORG	HOT DIMMING
	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 3 wires -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	ORG	HOT DIMMING
	RED	UNSWITCHED HOT

ECOSYSTEM	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TG9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 TEG

LAI16-104794

NOVA22 LED

RECESSED

**OPTICS**

CENTER LENS - PRECISION MICRO-PRISM-OPTIC (PMO) - utilizes a specially designed catadioptric lens that combines refraction and internal reflection. The square-base prism is 24% the size of those used in a high-performance fluorescent lens. The exclusive two-dimensional array of prisms is designed to eliminate the glare found at higher viewing angles and as such, enables a glare cut-off at a 45° viewing angle.

The acrylic material itself is untinted, relying entirely on catadioptric control for effective source obscuration. A highly efficient TIR process at the acrylic-air interface on the prism surfaces redirects incident light with less than a 0.1% loss per reflection. As a result, these LumenWerx optics attain a high optical efficiency greater than 90%, while maintaining visual comfort at normal viewing angles and presenting a pleasing luminous appearance.

SIDE LENS - HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO) - shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration.

LIGHT SOURCE - LED

Custom Linear array of mid-flux LED's are mounted directly to the housing for optimal thermal performance. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	20	2300	117
medium output	4000K	29	3200	112
high output	4000K	38	4200	110

ELECTRICAL

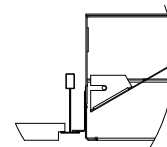
Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

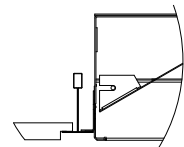
Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1300 lumens (25°C) emergency lighting output. Recharge time of 24 hours.

MOUNTING OPTIONS

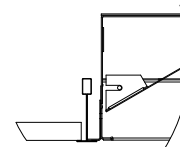
Recess mount into exposed or concealed T-Bar or
Tegular grid ceiling



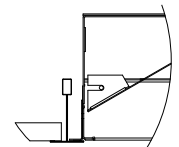
TG9 - tegular 9/16"



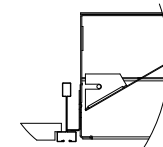
TG15 - tegular 15/16"



TB9 - t-bar 9/16"

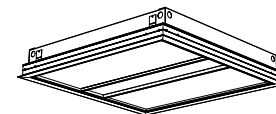
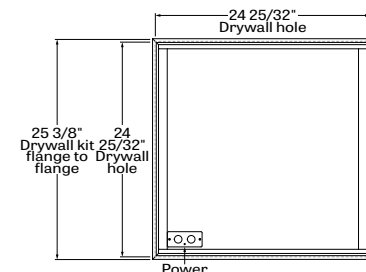


TB15 - t-bar 15/16"



ST - screw slot t-bar

A separate kit for mounting fixtures into drywall
ceilings



DF - drywall kit

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TG9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 TEG

LAI16-104794

NOVA22 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

FINISH

Interior reflectors - 95% reflective, matte white powder coating

Exterior - matte white powder coating.

Custom finish is also available.

CONTROLS

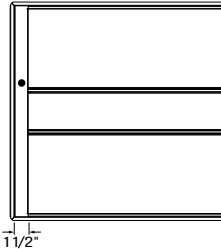
LumenWerx offers several options for integrating motion and daylight controls into NOVA luminaires. Wireless options incorporate a wireless controller/powerpack into the luminaire, which receives signals from a wireless sensor (by others) installed in the space. The advantages of the wireless option include greater flexibility of control options, sensor coverage, and system integration. Onboard options incorporate both the sensor and controller/powerpack. Onboard sensors, while inherently simpler, have limitations of control and coverage.

Onboard**Onboard Motion Sensor and power pack (OMS)**

provide automatic on and automatic off control, using PIR detection. Sensor is designed to detect fine-motion when installed within 6' of occupants.

Onboard Daylight Sensor and controller (ODS)

provide input for 0-10V dimming drivers. Separate switched control of line input is required for on/off control.



Location of an Onboard sensor

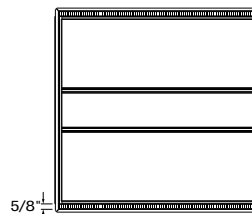
Wireless

EnOcean Wireless Controller (EWC) provides both a power pack for presence detection control and a 0-10V interface for daylight harvesting. EnOcean wireless sensors (by others) mounted in the room signal the onboard EWC. This option permits manual on/automatic off (vacancy) control.

Lutron Motion Controller (LMC) and **Lutron Daylight Controller (LDC)** provide inputs to Ecosystem drivers. Compatible Lutron wireless motion and daylight sensors (by others) mounted in the room signal onboard LPC or LDC. This option permits manual on/automatic off (vacancy) control.

OPTIONS

The air return option consists in a discreet, yet efficient, slot pattern integrated into the side flanges of the luminaire, allowing the airflow to exhaust into plenum space, creating a clean, pleasant look of the ceiling.



Air Return

CONSTRUCTION

Housing - Die formed cold rolled sheet steel 20 gauge thick, matte white powder coating.

Reflectors - Cold rolled steel 0.030" thick precisely die formed, 95% reflective matte white painted.

Interior brackets - Die formed cold rolled sheet steel 20 gauge thick.

Center basket - Extruded Aluminum 0.07" nominal, matte white and lens made in clear PMMA precisely formed into optical micro-structures forms.

Side lenses - Frost impact acrylic lens 88% transmissive.

Drywall kit - Extruded Aluminum 0.07" nominal, matte white powder coating.

WEIGHT

16.52lbs. +2.51lbs. (drywall kit) - 7.5kg +1.14kg (drywall kit)

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

DLC - Testing to DLC requirements, for this product, have been completed by an Accredited Laboratory and certified by DLC.

Lighting facts - testing products and reporting performance results according to industry standards.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-22-PMO-HLO-LED-80-3200-
30-277-D-1-TG9-W (2) EQ-CLIPS

Notes: Providing equal not specified

Type:

RM2 9/16 TEG

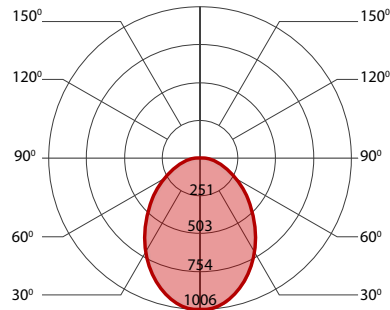
LAI16-104794

NOVA22 LED

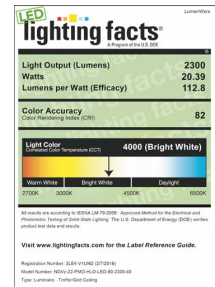
RECESSED

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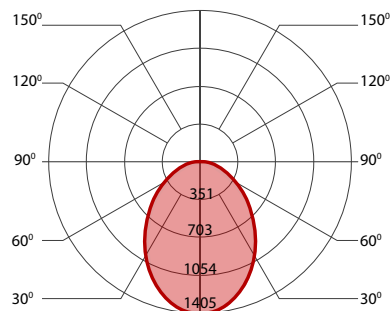
2300 LUMEN AT 80CRI - LOW OUTPUT

**PERFORMANCE**

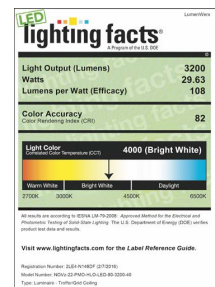
LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20	2300	115
low output	3500K	20	2300	115
low output	4000K	20	2300	117



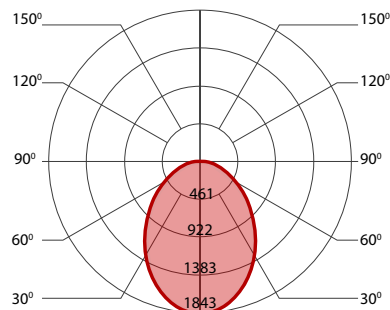
3200 LUMEN AT 80CRI - MEDIUM OUTPUT

**PERFORMANCE**

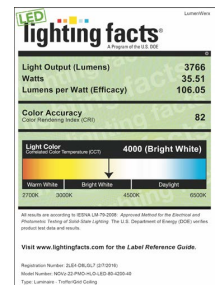
LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	29	3200	110
medium output	3500K	29	3200	110
medium output	4000K	29	3200	112



4200 LUMEN AT 80CRI - HIGH OUTPUT

**PERFORMANCE**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	39	4200	108
high output	3500K	39	4200	108
high output	4000K	38	4200	110



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-24-PMO-HLO-LED-80-4000-
30-277-D-1-TG9/16-W (4) EQ-CLIPS

Notes: Providing equal not specified

Type:**RM4**

LAI16-104794

NOVA24 LED**RECESSED**

Grid - shown with a Nova flat lens



Grid - shown with a Nova Slope lens

PROJECT: _____

APPROVED BY: _____

SIGNATURE: _____

TYPE

QTY

DESCRIPTION

Nova is an efficient architectural LED troffer with a distinctive luminous shielding that distributes gentle brightness from the sides of its central optical element. Using advanced LED engines, Nova provides highly efficient illumination and offers comprehensive ceiling, electrical, and controls options in 2x2, 1x4, and 2x4 sizes. Nova is available with both Flat and Slope side diffusers.

See separate spec sheets for other available mountings.

**up to 108 lm/w performance****IC RATED**

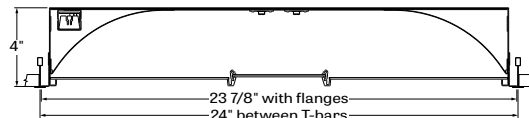
	24	PMO	HLO	LED			
LUMINAIRE ID	SIZE	CENTER OPTICS	SIDE OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
NOVRF - nova recessed flat	24 - 2'x4'	PMO - Precision	HLO - High-Efficiency	LED - high	80 - 80CRI	4000 - low output 4000lm	30 - 3000k
NOVRS - nova recessed slope		Micro-Prism Optic	Lambertian Optic	performance LED	90 - 90CRI	5500 - medium output 5500lm	35 - 3500k
						6800 - high output 6800lm	40 - 4000k

VOLTAGE	DRIVER	ELECTRICAL	MOUNTING	FINISH	CONTROLS
120 - 120V	D - dimming 0-10V	1 - 1 circuit	TG9 - tegular 9/16"	W - matte white	ONBOARD
277 - 277V	DA - Dali	+EB - emergency battery pack	TG15 - tegular 15/16"	CF# - custom finish	OMS - Motion Sensor & power pack
UNV - 120V-277V	LA2 - Lutron Hi-Lume A - 2 wires 120V	+EM - emergency light circuit	TB9 - t-bar 9/16"	specify RAL#	ODS - Daylight Sensor & controller
347 - 347V	LA3 - Lutron Hi-Lume A - 3 wires/EcoS	+NL - night light circuit	TB15 - t-bar 15/16"		WIRELESS
	LEH - Lutron EcoSystem H	+GTD - generator transfer device	ST - screw slot t-bar		EWC - EnOcean Wireless Controller
	LE5 - Lutron EcoSystem 5	+M - master (consult factory)	DF - drywall kit		LMC - Lutron Motion Controller
	OTH - other (consult factory)	+S - satellite (consult factory)			LDC - Lutron Daylight Controller

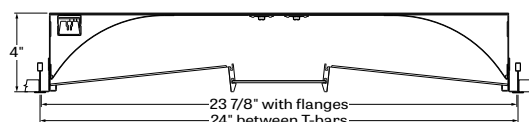
EQ-CLIPS**OPTIONS**

FU - fuse
FWC - flexible whip cable (6' std)
AR - air return (for grid only)
CP - Chicago Plenum
CU - custom

See page 4 for ordering code detailed information

CROSS SECTION

NOVRF - nova flat t-bar 9/16



NOVRS - nova slope t-bar 9/16

OPTICS

NOVRS - nova slope



NOVRF - nova flat

File Name: NOVA24-RECESSED-SPEC

Page: 1 / 6

August 7, 2016

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Catalog Number:

(1) NOVRS-24-PMO-HLO-LED-80-4000-
30-277-D-1-TG9-W (4) EQ-CLIPS

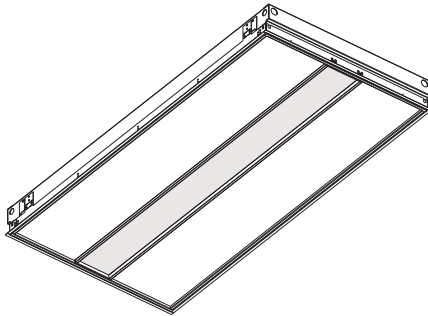
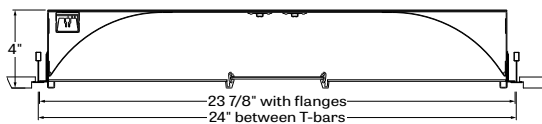
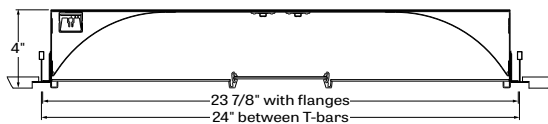
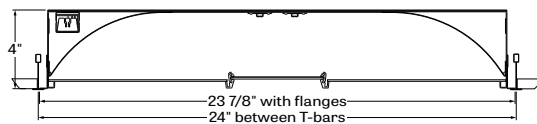
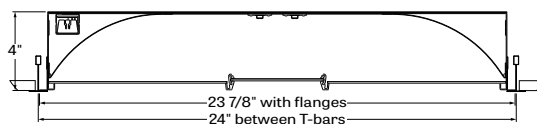
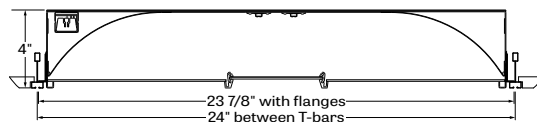
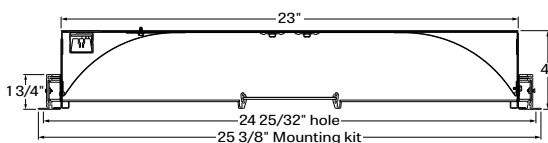
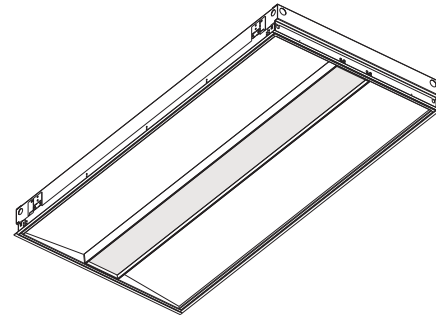
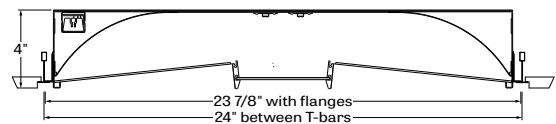
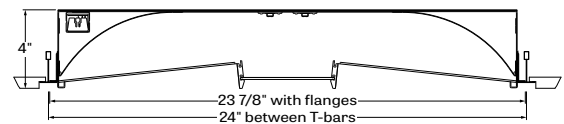
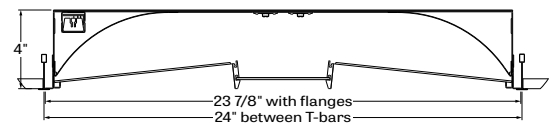
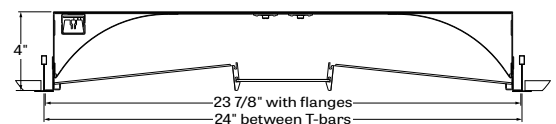
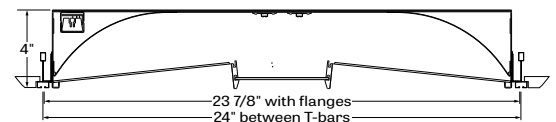
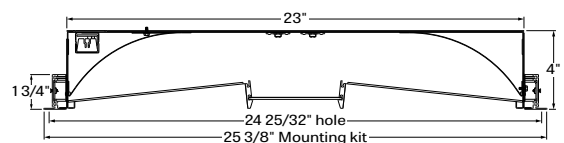
Notes: Providing equal not specified

Type:**RM4**

LAI16-104794

NOVA24 LED

RECESSED

**NOVA FLAT****NOVA FLAT - TG9 - tegular 9/16"****NOVA FLAT - TG15 - tegular 15/16"****NOVA FLAT - TB9 - t-bar 9/16"****NOVA FLAT - TB15 - t-bar 15/16"****NOVA FLAT - ST- screw slot t-bar****NOVA FLAT - DW- drywall kit****NOVA SLOPE****NOVA SLOPE - TG9 - tegular 9/16"****NOVA SLOPE - TG15 - tegular 15/16"****NOVA SLOPE - TB9 - t-bar 9/16"****NOVA SLOPE - TB15 - t-bar 15/16"****NOVA SLOPE - ST- screw slot t-bar****NOVA SLOPE - DW- drywall kit**

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-24-PMO-HLO-LED-80-4000-
30-277-D-1-TG9/-W (4) EQ-CLIPS

Notes: Providing equal not specified

Type:**RM4**

LAI16-104794

NOVA24 LED

RECESSED

**ELECTRICAL CIRCUITS****DIMMING 0-10V -**

1 Circuit

1 CIRCUIT	BLK	HOT (CIRCUIT-1)
	WHT	NEUTRAL (CIRCUIT -1)
	GRN	GROUND
	PPL	DIM(+) 0-10V
	GRY	DIM(-) 0-10V

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 2 wires -

1 Circuit

1 CIRCUIT	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON ECOSYSTEM H -

1 Circuit

1 CIRCUIT	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

DIMMING 0-10V -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT (CIRCUIT-1)
	WHT	NEUTRAL (CIRCUIT -1)
	GRN	GROUND
	RED	UNSWITCHED HOT
	PPL	DIM(+) 0-10V
	GRY	DIM(-) 0-10V

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 2 wires -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	RED	UNSWITCHED HOT

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON ECOSYSTEM H -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	RED	UNSWITCHED HOT
	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 3 wires -

1 Circuit

1 CIRCUIT	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	ORG	HOT DIMMING
	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

LUTRON HI-LUME A 3 wires -

1 Circuit + Emergency Battery

1 CIRCUIT + EB	BLK	HOT
	WHT	NEUTRAL
	GRN	GROUND
	ORG	HOT DIMMING
	RED	UNSWITCHED HOT

ECOSYSTEM	PPL	E1 To EcoSystem Digital Link
	GRY	E2

NOTE: MUST FOLLOW WIRE SIZE
AND MAXIMUM LENGTH FOR
DIMMING APPLICATIONS.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

(1) NOVRS-24-PMO-HLO-LED-80-4000-
30-277-D-1-TG9-W (4) EQ-CLIPS

Notes: Providing equal not specified

Type:**RM4**

LAI16-104794

NOVA24 LED**RECESSED****OPTICS**

CENTER LENS - PRECISION MICRO-PRISM-OPTIC (PMO) - utilizes a specially designed catadioptric lens that combines refraction and internal reflection. The square-base prism is 24% the size of those used in a high-performance fluorescent lens. The exclusive two-dimensional array of prisms is designed to eliminate the glare found at higher viewing angles and as such, enables a glare cut-off at a 45° viewing angle.

The acrylic material itself is untinted, relying entirely on catadioptric control for effective source obscuration. A highly efficient TIR process at the acrylic-air interface on the prism surfaces redirects incident light with less than a 0.1% loss per reflection. As a result, these LumenWerx optics attain a high optical efficiency greater than 90%, while maintaining visual comfort at normal viewing angles and presenting a pleasing luminous appearance.

SIDE LENS - HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO) - shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration.

LIGHT SOURCE - LED

Custom Linear array of mid-flux LED's are mounted directly to the housing for optimal thermal performance. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	37	4000	108
medium output	4000K	53	5500	103
high output	4000K	66	6800	103

ELECTRICAL

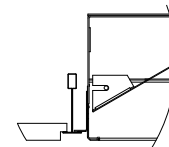
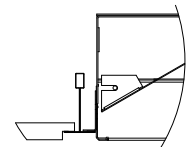
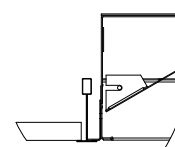
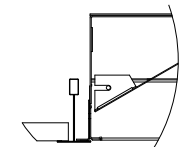
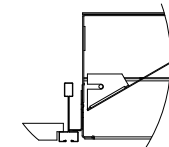
Factory-set adjustable output current electronic driver with 120-277V AC line input. Dimmable from at least 100%-5% with 0-10V control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 20%. Other specifiable options include Lutron Hi-Lume A (specify 2, 3 or 4 wires), EcoSystem H (100%-1%, fade-to-black) and EcoSystem 5 (100%-5%) dimmable drivers and DALI protocol drivers.

EMERGENCY

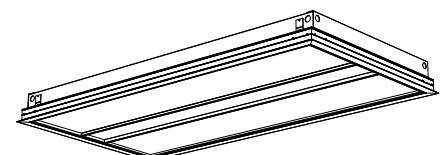
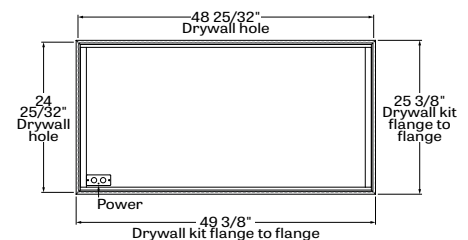
Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1300 lumens (25°C) emergency lighting output. Recharge time of 24 hours.

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or
Regular grid ceiling

**TG9** - tegular 9/16"**TG15** - tegular 15/16"**TB9** - t-bar 9/16"**TB15** - t-bar 15/16"**ST** - screw slot t-bar

A separate kit for mounting fixtures into drywall
ceilings

**DF** - drywall kit**FINISH**

Interior reflectors - 95% reflective, matte white powder coating

Exterior - matte white powder coating.
Custom finish is also available.

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SCIENCE BUILDING - FIXTURE QUOTE
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(SAINT LOUIS)

Catalog Number:

(1) NOVRS-24-PMO-HLO-LED-80-4000-
30-277-D-1-TG9-W (4) EQ-CLIPS

Notes: Providing equal not specified

Type:**RM4**

LAI16-104794

NOVA24 LED

RECESSED

LUMENWERX
WWW.LUMENWERX.COM

CONTROLS

LumenWerx offers several options for integrating motion and daylight controls into NOVA luminaires. Wireless options incorporate a wireless controller/powerpack into the luminaire, which receives signals from a wireless sensor (by others) installed in the space. The advantages of the wireless option include greater flexibility of control options, sensor coverage, and system integration. Onboard options incorporate both the sensor and controller/powerpack. Onboard sensors, while inherently simpler, have limitations of control and coverage.

Onboard

Onboard Motion Sensor and power pack (OMS) provide automatic on and automatic off control, using PIR detection. Sensor is designed to detect fine-motion when installed within 6' of occupants.

Onboard Daylight Sensor and controller (ODS) provide input for 0-10V dimming drivers. Separate switched control of line input is required for on/off control.



Location of an Onboard sensor

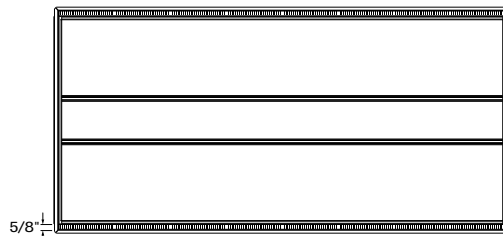
Wireless

EnOcean Wireless Controller (EWC) provides both a power pack for presence detection control and a 0-10V interface for daylight harvesting. EnOcean wireless sensors (by others) mounted in the room signal the onboard EWC. This option permits manual on/automatic off (vacancy) control.

Lutron Motion Controller (LMC) and **Lutron Daylight Controller (LDC)** provide inputs to Ecosystem drivers. Compatible Lutron wireless motion and daylight sensors (by others) mounted in the room signal onboard LPC or LDC. This option permits manual on/automatic off (vacancy) control.

OPTIONS

The air return option consists in a discreet, yet efficient, slot pattern integrated into the side flanges of the luminaire, allowing the airflow to exhaust into plenum space, creating a clean, pleasant look of the ceiling.



Air Return

CONSTRUCTION

Housing - Die formed cold rolled sheet steel 20 gauge thick, matte white powder coating.

Reflectors - Cold rolled steel 0.030" thick precisely die formed, 95% reflective matte white painted.

Interior brackets - Die formed cold rolled sheet steel 20 gauge thick.

Center basket - Extruded Aluminum 0.07" nominal, matte white and lens made in clear PMMA precisely formed into optical micro-structures forms.

Side lenses - Frost impact acrylic lens 88% transmissive.

Drywall kit - Extruded Aluminum 0.07" nominal, matte white powder coating.

WEIGHT

36.23lbs.+3.74lbs. (drywall kit) - 16.45kg+1.7 kg (drywall kit)

CERTIFICATIONS

ETL - Rated for Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

DLC - Testing to DLC requirements, for this product, have been completed by an Accredited Laboratory and certified by DLC.

Lighting facts - testing products and reporting performance results according to industry standards.

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

**Job Name:**

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SCIENCE BUILDING - FIXTURE QUOTE
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(SAINT LOUIS)

Catalog Number:

(1) NOVRS-24-PMO-HLO-LED-80-4000-
30-277-D-1-TG9-W (4) EQ-CLIPS

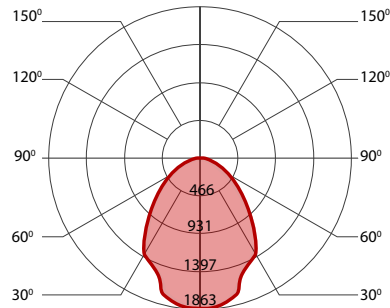
Notes: Providing equal not specified

Type:**RM4**

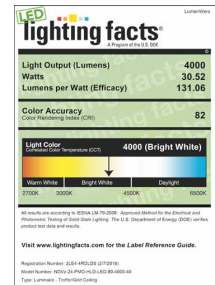
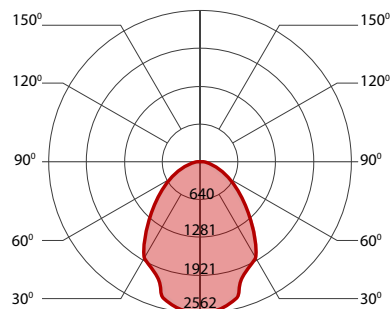
LAI16-104794

NOVA24 LED

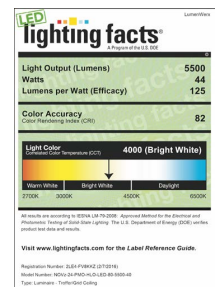
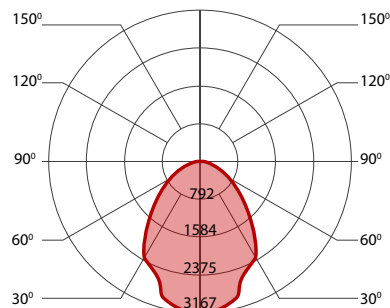
RECESSED

**4000 LUMEN AT 80CRI - LOW OUTPUT****PERFORMANCE**

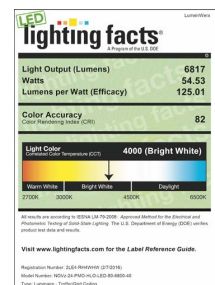
LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	40	4000	101
low output	3500K	38	4000	104
low output	4000K	37	4000	108

**5500 LUMEN AT 80CRI - MEDIUM OUTPUT****PERFORMANCE**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	57	5500	97
medium output	3500K	55	5500	100
medium output	4000K	53	5500	103

**6800 LUMEN AT 80CRI - HIGH OUTPUT****PERFORMANCE**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	70	6800	97
high output	3500K	68	6800	100
high output	4000K	66	6800	103



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-LENGTH-S-3000K-F-277V-
SC-WOOD-DIM

Notes:

Type:**RN**

LAI16-104794

IC - RATED

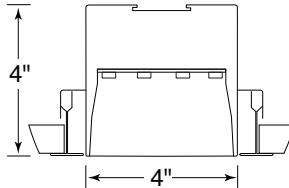
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

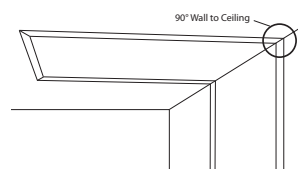
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting
10 working days**TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

4"**Finelite Series HP-4 R -**

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output **[S - Standard, B - Boosted Standard, H - High, V - Very High]**

LED CRI **[8 - 80 CRI min (standard), 9 - 90 CRI min]**

LED Color Temperature **[30 - 3000K, 35 - 3500K, 40 - 4000K]**

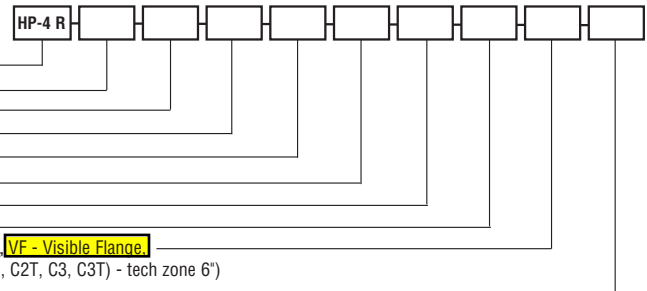
Downlight Diffuser Option **[F - Flush (standard)]**

Voltage (120V **[277V]**)

Circuiting **[SC - Single Circuit]**

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, **[VF - Visible Flange]**, C2T - 9/16" tegular, C1T - 1" tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-LENGTH-S-3000K-F-277V-
SC-WOOD-DIM

Notes:

Type:**RN**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

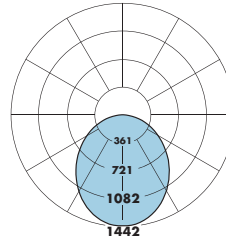
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-LENGTH-S-3000K-F-277V-
SC-WOOD-DIM

Notes:

Type:**RN**

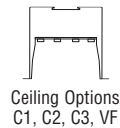
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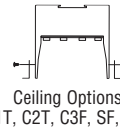
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

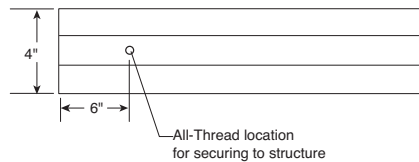
High Performance 4" Aperture (HP-4) - Recessed

HOUSING

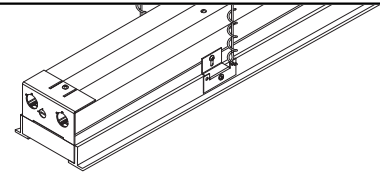
Housing With
Extruded Flange (V1)



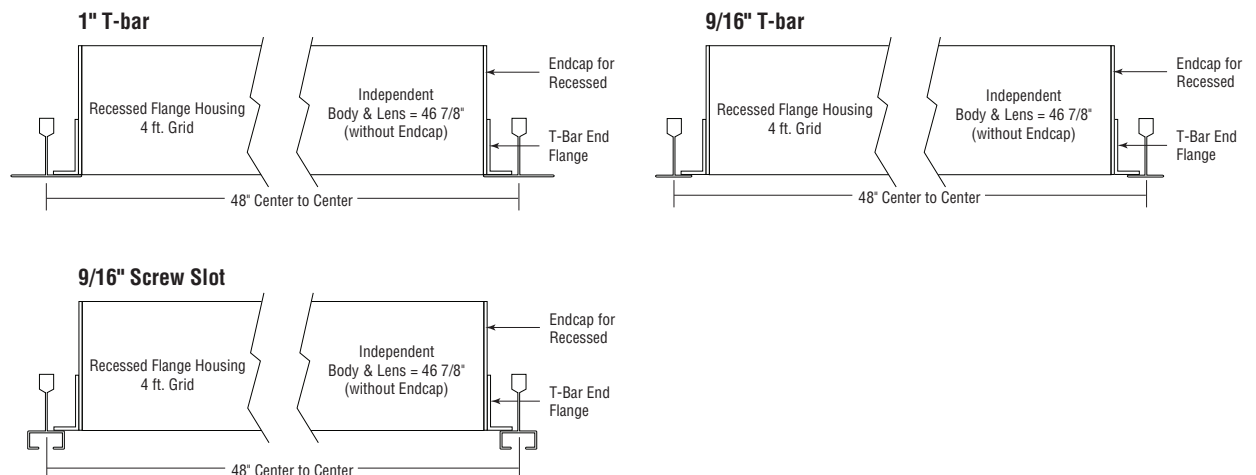
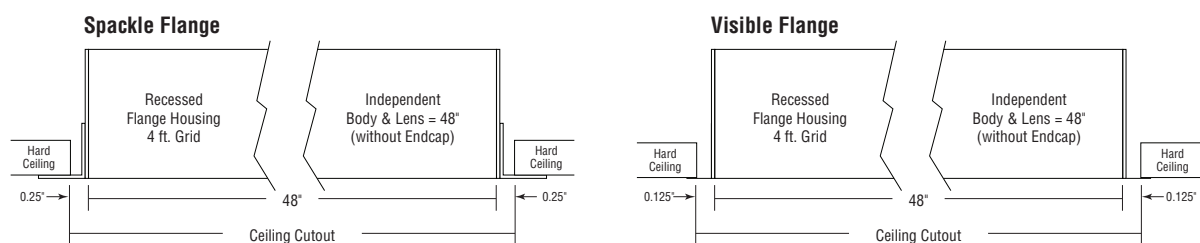
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-LENGTH-S-3000K-F-277V-
SC-WOOD-DIM

Notes:

Type:**RN**

LAI16-104794

IC - RATED

LED



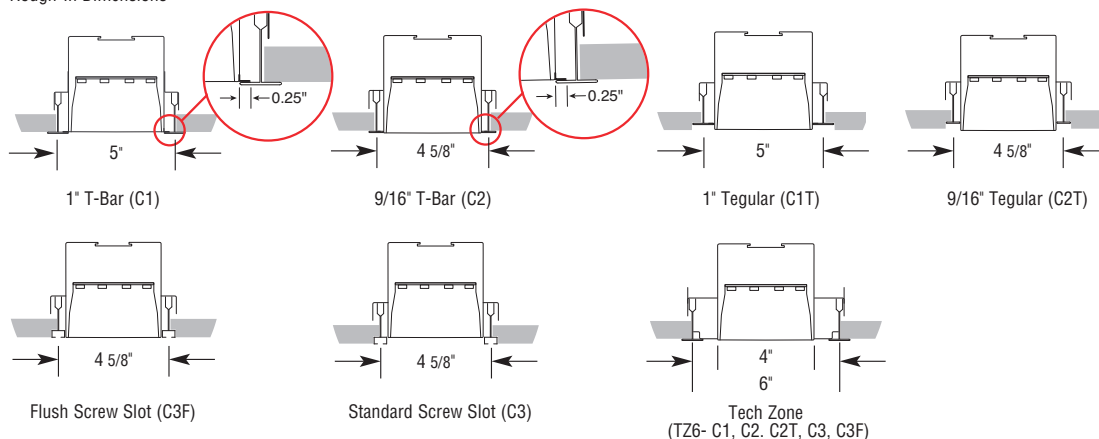
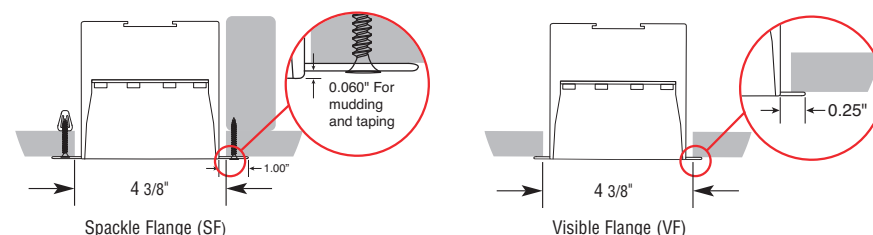
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-16"

Notes: 9/16 TEG TILE

Type:

RP16

LAI16-104794

Seem® 4

LED



trimless mud-in



trim flange



grid



end detail



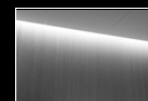
corner detail



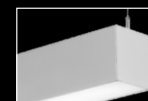
regress lens



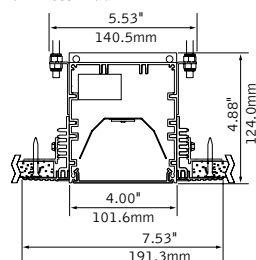
wall to ceiling
companion



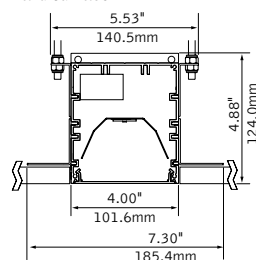
perimeter
companion



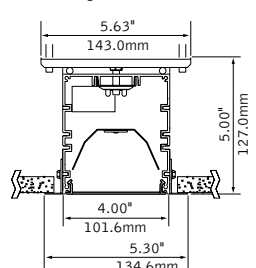
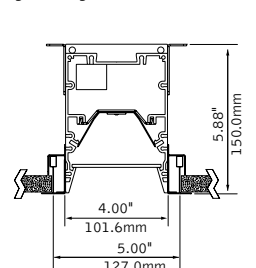
suspended
companion

DIMENSIONAL DATA**trimless mud-in**

note: 0.375"min - 2.125"max ceiling thickness

hard surface

note: 0.375"min - 2.125"max ceiling thickness

trim flange**grid - regress lens shown****FEATURES**

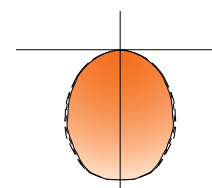
Narrow extruded aluminum 4" aperture recessed slot LED.

Integrates with ceiling or wall in a variety of mounting styles for a clean, unobtrusive aesthetic.

Individual units and continuous runs in 1' increments.

Frosted acrylic lens provides uninterrupted illumination, without pixels or shadows.

LED position and lens material optimized to provide the perfect blend of high performance and visual comfort.

PERFORMANCE

4' Flush Lens
Nominal output:
375 Lumens per foot

Delivered Lumens: 1500lm
Total System Watts: 15W

PRODUCT OVERVIEW

Lumen Output: 1500-4000lm
Wattage: 15-46W
LPW: 77-103
SDCM: 3
Reported Lumen L70 @
Maintenance: >60,000hrs



Photometric performance is measured in accordance with IESNA LM-79. Visit focalpointlights.com for complete photometric data. Visit designlights.org/QPL for model specifics.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-16'

Notes: 9/16 TEG TILE

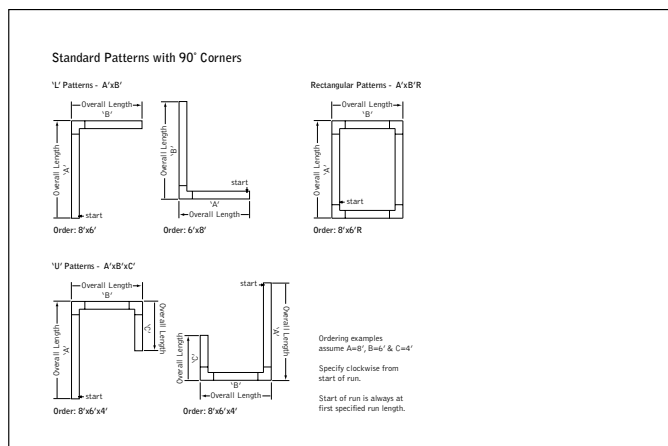
Type:

RP16

LAI16-104794

fixture:

project:

DETAILS**SPECIFICATIONS****LED System**

Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 3000K, 3500K or 4000K with CRI>80, 3SDCM. LED modules and drivers are replaceable from below.

Construction

One piece extruded aluminum housing. 20 Ga. steel end caps. Housing for new construction applications. XFW acceptable for use with wood, consult factory for Type 1C availability. 2' unit weight: 18 lbs., 3' unit weight: 24 lbs., 4' unit weight: 30 lbs., 5' unit weight: 36 lbs.

Optic

Reflectors fabricated of 22 Ga. steel finished in High Reflectance White powder coat. Extruded acrylic lens .085" thick with satin finish, up to 8' continuous.

Electrical

Luminaires are pre-wired with factory installed branch circuit wiring and over-molded quick connects. Standard 120-277V constant current driver includes 0-10V analog dimming. Dimming range 100% to 10%. Power factor >.9.

Emergency Battery

Bodine BSL310-CAN. Emergency output - 10 watts for 90 minutes.

Labels

UL and cUL listed. Suitable for Dry or Damp Locations, indoor use only.

Finish

Polyester powder coat applied over a 5-stage pre-treatment.

Lumen Maintenance

Calculated: L70 at 118,000 hours Reported: L70 at >60,000 hours
Derived from EPA TM-21 calculator based on 10,000 hours of test data.

Warranty

LED system rated for operation in ambient environments up to 25°C. 5 year limited warranty.

4' PERFORMANCE CHART

Shielding	Lumens per Foot	Delivered Lumens	Tested System Watts	LPW
Flush Lens	375LF	1500	15	97
	625LF	2500	26	95
	875LF	3500	39	89
	1000LF	4000	46	86
Regress Lens	375LF	1500	15	86
	625LF	2500	26	84
	875LF	3500	39	80
	1000LF	4000	46	77
Regress High Performance	375LF	1500	15	103
	625LF	2500	26	100
	875LF	3500	39	95
	1000LF	4000	46	91

*Based on 3500K, 4' lengths. *Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

Focal Point LLC reserves the right to change specifications for product improvement without notification.

ORDERING**Luminaire Series**

Seem 4 LED FSM4L

Shielding

Flush Satin Lens FL

Regress Lens SR

(Ceiling applications only)

Regress High Performance Lens SRXP

(Ceiling applications only)

Lumen Output

275 Lumens per foot 275LF

(Not available with Lutron Drivers.)

375 Lumens per foot 375LF

(Not available with LU5 & LH1 Drivers)

625 Lumens per foot 625LF

(FL & SR 3' minimum with LU5 & LH1 Drivers.)

SRXP 4' minimum with LU5 & LH1 Drivers.)

875 Lumens per foot 875LF

(SR & SRXP 3' minimum with LU5 & LH1 Drivers)

1000 Lumens per foot 1000LF

(Not available with L3D driver)

Color Temperature

3000K 30K

3500K 35K

4000K 40K

Circuit

Single Circuit 1C

Voltage

120 Volt 120

277 Volt 277

UNV Volt UNV

(Cannot be specified with EM option)

Driver

(See driver reference for driver quantities)

0-10V - 10% Dimming LD1

0-10V - 1% Dimming L11

Lutron A-Series L3D

1% EcoSystem Digital

(Consult factory for 3-wire control)

Lutron H-Series 1% Dimming LH1

Lutron 5-Series LU5

5% EcoSystem Digital

DALI 1% Dimming D11

Ceiling Configuration

Std. 15/16" Lay-in G1

Std. 15/16" Tegular T1

Std. 9/16" Lay-in G2

Std. 9/16" Tegular T2

9/16" Slot-tee Tegular G3

Tall 15/16" Lay-in G4

Tall 15/16" Tegular T4

Tall 9/16" Lay-in G5

Tall 9/16" Tegular T5

Node 9/16" Tegular T6

Trim Flange Drywall TF

(3' minimum with Lutron Drivers)

Trim Flange Wood TFW

(3' minimum with Lutron Drivers)

Mud-in Trimless, XF1

pre-set for 1/2" Drywall

Mud-in Trimless, XF2

pre-set for 5/8" Drywall

Mud-in Trimless, XFF

set thickness in field

(Mounting equipment assembled in field)

Non-Drywall Hard Surface XFN

Hard Surface, Wood XFW

Factory Options

Chicago Plenum CP

Emergency Circuit* EC

Emergency Battery Pack* EM

(4' lengths or longer, not available at corners)

6' New York City Flex Whip FNY

6' Flex Whip FW

Finish

Matte White Housing WH

16'

Luminaire Length

(Leave blank for patterns. Lengths are nominal)

Specify luminaire/row X'

length in 1' increments

(Smaller increments available. Consult factory for details.)

Pattern Options

(3' minimum length)

'L' pattern A' x B'

'U' pattern A' x B' x C'

Rectangular pattern A' x B'R

(Consult factory for other pattern options)



*For more information visit focalpointlights.com/reference or consult factory. Quickship is a limited offering, visit focalpointlights.com/quickship for specifics.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-16"

Notes: 9/16 TEG TILE

Type:

RP16

LAI16-104794

Seem® 4

LED - FLUSH LENS

FSM4L-FL-375LF-35K-1C-UNV-LD1-G1-CP-WH-4"

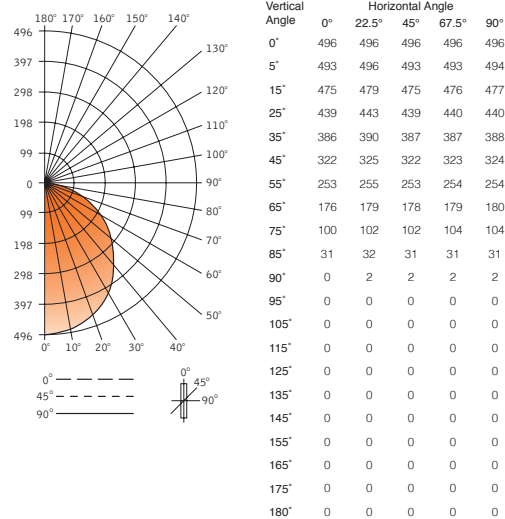
Filename: FSM4LFL375LF35K.IES

Test #: 11499493.01

Lumens: 1423lm

System Watts: 15W

LPW: 95

CANDLEPOWER DISTRIBUTION**LUMEN SUMMARY**

	Zone	Lumens	% Fixture
Total Luminaire	0-30°	384	27.0
	0-40°	627	44.1
	0-60°	1103	77.5
	0-90°	1423	100.00
	0-180°	1423	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	3757	3760	3774
55°	3634	3642	3657
65°	3441	3473	3506
75°	3193	3261	3313
85°	2923	2967	2970

Go to www.focalpointlights.com for additional photometric data.

Seem® 4

LED - REGRESS LENS

FSM4L-SR-375LF-35K-LD1-1C-120-G1-WH

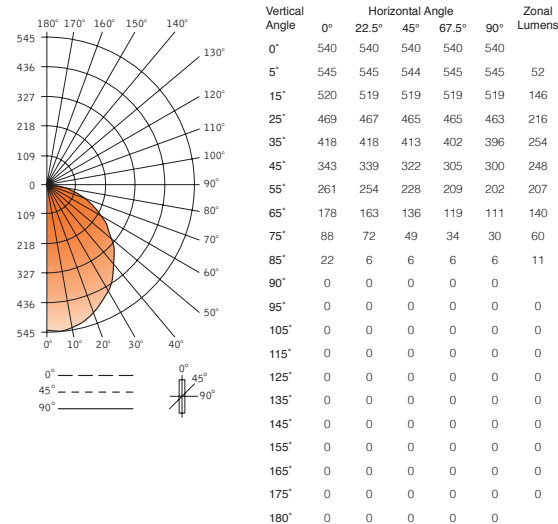
Filename: FSM4LSR375LF35K.IES

Test #: 17847.0

Lumens: 1333lm

System Watts: 15W

LPW: 89

CANDLEPOWER DISTRIBUTION**LUMEN SUMMARY**

	Zone	Lumens	% Fixture
	0-30°	414	31.0
	0-40°	668	50.1
	0-60°	1122	84.2
	0-90°	1333	100.0
Total Luminaire	0-180°	1333	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	4723	4439	4130
55°	4436	3872	3430
65°	4096	3145	2565
75°	3310	1858	1115
85°	2407	702	702

Go to www.focalpointlights.com for additional photometric data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-16'

Notes: 9/16 TEG TILE

Type:

RP16

LAI16-104794

Seem® 4

LED - REGRESS HIGH PERFORMANCE LENS

FSM4L-SRXP-375LF-35K-LD1-1C-120-G1-WH

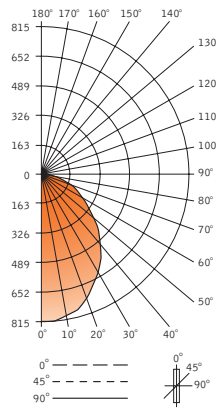
Filename: FSM4LSRXP375LF35K.IES

Test #: 17852.0

Lumens: 1587lm

System Watts: 15W

LPW: 106

CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle				Zonal Lumens
	0°	22.5°	45°	67.5°	90°
0°	812	812	812	812	812
5°	813	813	812	812	77
15°	767	761	755	745	211
25°	671	662	641	619	295
35°	567	553	514	469	318
45°	436	418	362	303	278
55°	305	285	220	180	208
65°	194	169	118	95	131
75°	90	68	45	33	57
85°	22	10	7	7	12
90°	0	0	0	0	0
95°	0	0	0	0	0
105°	0	0	0	0	0
115°	0	0	0	0	0
125°	0	0	0	0	0
135°	0	0	0	0	0
145°	0	0	0	0	0
155°	0	0	0	0	0
165°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30°	583	36.8
0-40°	901	56.8
0-60°	1386	87.4
0-90°	1587	100.0
Total Luminaire	0-180°	1587 100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal		
	0°	45°	90°
45°	6005	4980	3896
55°	5183	3738	2853
65°	4460	2720	2083
75°	3401	1681	1120
85°	2496	832	832

Go to www.focalpointlights.com for additional photometric data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-20'

Notes: 9/16 TEG TILE

Type:

RP20

LAI16-104794

Seem® 4

LED



trimless mud-in



trim flange



grid



end detail



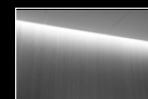
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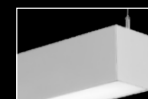
regress lens



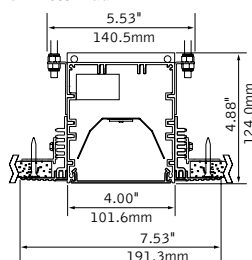
wall to ceiling
companion



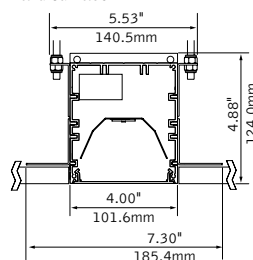
perimeter
companion



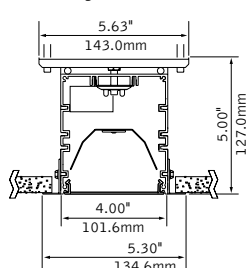
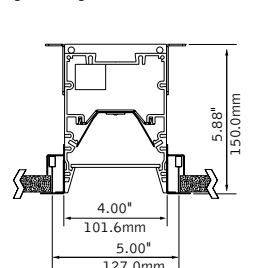
suspended
companion

DIMENSIONAL DATA**trimless mud-in**

note: 0.375"min - 2.125"max ceiling thickness

hard surface

note: 0.375"min - 2.125"max ceiling thickness

trim flange**grid - regress lens shown****FEATURES**

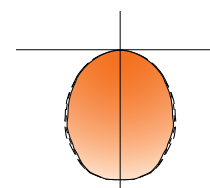
Narrow extruded aluminum 4" aperture recessed slot LED.

Integrates with ceiling or wall in a variety of mounting styles for a clean, unobtrusive aesthetic.

Individual units and continuous runs in 1' increments.

Frosted acrylic lens provides uninterrupted illumination, without pixels or shadows.

LED position and lens material optimized to provide the perfect blend of high performance and visual comfort.

PERFORMANCE

4' Flush Lens
Nominal output:
375 Lumens per foot

Delivered Lumens: 1500lm
Total System Watts: 15W

PRODUCT OVERVIEW

Lumen Output: 1500-4000lm
Wattage: 15-46W
LPW: 77-103
SDCM: 3
Reported Lumen L70 @
Maintenance: >60,000hrs



Photometric performance is measured in accordance with IESNA LM-79. Visit focalpointlights.com for complete photometric data. Visit designlights.org/QPL for model specifics.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-20'

Notes: 9/16 TEG TILE

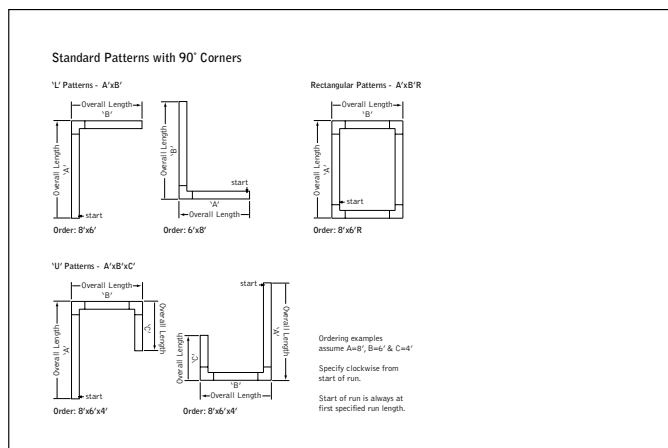
Type:

RP20

LAI16-104794

fixture:

project:

DETAILS**SPECIFICATIONS****LED System**

Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 3000K, 3500K or 4000K with CRI>80, 3SDCM. LED modules and drivers are replaceable from below.

Construction

One piece extruded aluminum housing. 20 Ga. steel end caps. Housing for new construction applications. XFW acceptable for use with wood, consult factory for Type 1C availability. 2' unit weight: 18 lbs., 3' unit weight: 24 lbs., 4' unit weight: 30 lbs., 5' unit weight: 36 lbs.

Optic

Reflectors fabricated of 22 Ga. steel finished in High Reflectance White powder coat. Extruded acrylic lens .085" thick with satin finish, up to 8' continuous.

Electrical

Luminaires are pre-wired with factory installed branch circuit wiring and over-molded quick connects. Standard 120-277V constant current driver includes 0-10V analog dimming. Dimming range 100% to 10%. Power factor >.9.

Emergency Battery

Bodine BSL310-CAN. Emergency output - 10 watts for 90 minutes.

Labels

UL and cUL listed. Suitable for Dry or Damp Locations, indoor use only.

Finish

Polyester powder coat applied over a 5-stage pre-treatment.

Lumen Maintenance

Calculated: L70 at 118,000 hours Reported: L70 at >60,000 hours
Derived from EPA TM-21 calculator based on 10,000 hours of test data.

Warranty

LED system rated for operation in ambient environments up to 25°C. 5 year limited warranty.

4' PERFORMANCE CHART

Shielding	Lumens per Foot	Delivered Lumens	Tested System Watts	LPW
Flush Lens	375LF	1500	15	97
	625LF	2500	26	95
	875LF	3500	39	89
	1000LF	4000	46	86
Regress Lens	375LF	1500	15	86
	625LF	2500	26	84
	875LF	3500	39	80
	1000LF	4000	46	77
Regress High Performance	375LF	1500	15	103
	625LF	2500	26	100
	875LF	3500	39	95
	1000LF	4000	46	91

*Based on 3500K, 4' lengths. *Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

Focal Point LLC reserves the right to change specifications for product improvement without notification.

ORDERING**Luminaire Series**

Seem 4 LED FSM4L

Shielding

Flush Satin Lens FL

Regress Lens SR

(Ceiling applications only)

Regress High Performance Lens SRXP

(Ceiling applications only)

Lumen Output

275 Lumens per foot 275LF

(Not available with Lutron Drivers.)

375 Lumens per foot 375LF

(Not available with LU5 & LH1 Drivers)

625 Lumens per foot 625LF

(FL & SR 3' minimum with LU5 & LH1 Drivers. SRXP 4' minimum with LU5 & LH1 Drivers.)

875 Lumens per foot 875LF

(SR & SRXP 3' minimum with LU5 & LH1 Drivers)

1000 Lumens per foot 1000LF

(Not available with L3D driver)

Color Temperature

3000K 30K

3500K 35K

4000K 40K

Circuit

Single Circuit 1C

Voltage

120 Volt 120

277 Volt 277

UNV Volt UNV

(Cannot be specified with EM option)

Driver

(See driver reference for driver quantities)

0-10V - 10% Dimming LD1

0-10V - 1% Dimming L11

Lutron A-Series L3D

1% EcoSystem Digital

(Consult factory for 3-wire control)

Lutron H-Series 1% Dimming LH1

Lutron 5-Series LU5

5% EcoSystem Digital DALI 1% Dimming D11

Ceiling Configuration

Std. 15/16" Lay-in G1

Std. 15/16" Tegular T1

Std. 9/16" Lay-in G2

Std. 9/16" Tegular T2

9/16" Slot-tee Tegular G3

Tall 15/16" Lay-in G4

Tall 15/16" Tegular T4

Tall 9/16" Lay-in G5

Tall 9/16" Tegular T5

Node 9/16" Tegular T6

Trim Flange Drywall TF

(3' minimum with Lutron Drivers)

Trim Flange Wood TFW

(3' minimum with Lutron Drivers)

Mud-in Trimless, XF1

pre-set for 1/2" Drywall XF2

Mud-in Trimless, XFF

pre-set for 5/8" Drywall

Mud-in Trimless, set thickness in field

(Mounting equipment assembled in field)

Non-Drywall Hard Surface XFN

Hard Surface, Wood XFW

Factory Options

Chicago Plenum CP

Emergency Circuit* EC

Emergency Battery Pack* EM

(4' lengths or longer, not available at corners)

6' New York City Flex Whip FNY

6' Flex Whip FW

Finish

Matte White Housing WH

Luminaire Length

(Leave blank for patterns. Lengths are nominal)

Specify luminaire/row length in 1' increments X'

(Smaller increments available. Consult factory for details.)

Pattern Options

(3' minimum length)

'L' pattern A' x B'

'U' pattern A' x B' x C'

Rectangular pattern A' x B'R

(Consult factory for other pattern options)



*For more information visit focalpointlights.com/reference or consult factory. Quickship is a limited offering, visit focalpointlights.com/quickship for specifics.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-20'

Notes: 9/16 TEG TILE

Type:

RP20

LAI16-104794

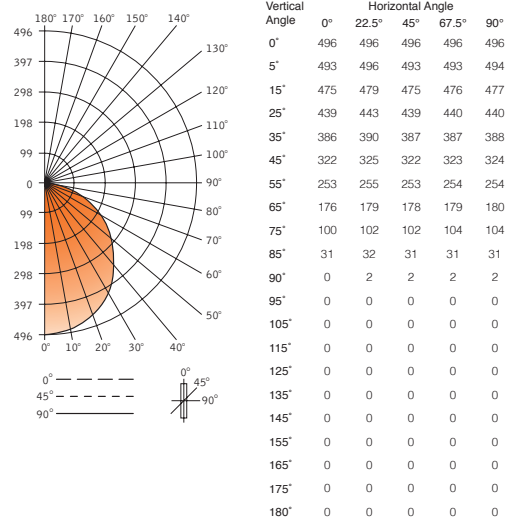
Seem® 4

LED - FLUSH LENS

FSM4L-FL-375LF-35K-1C-UNV-LD1-G1-CP-WH-4'

Filename: FSM4LFL375LF35K.IES
Test #: 11499493.01

Lumens: 1423lm
System Watts: 15W
LPW: 95

CANDLEPOWER DISTRIBUTION**LUMEN SUMMARY**

Zone	Lumens	% Fixture
0-30°	384	27.0
0-40°	627	44.1
0-60°	1103	77.5
0-90°	1423	100.00
Total Luminaire	0-180°	1423

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	3757	3760	3774
55°	3634	3642	3657
65°	3441	3473	3506
75°	3193	3261	3313
85°	2923	2967	2970

Go to www.focalpointlights.com for additional photometric data.

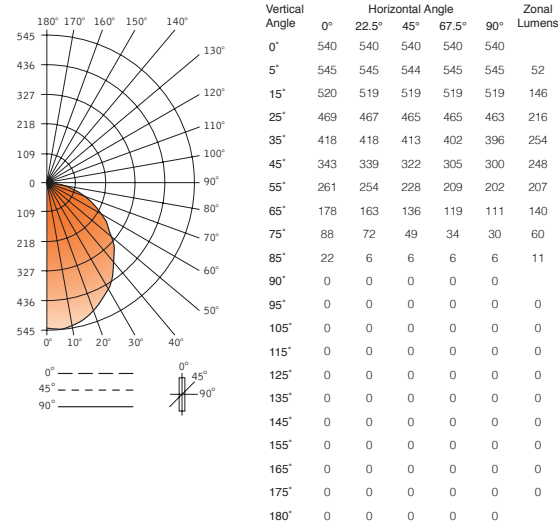
Seem® 4

LED - REGRESS LENS

FSM4L-SR-375LF-35K-LD1-1C-120-G1-WH

Filename: FSM4LSR375LF35K.IES
Test #: 17847.0

Lumens: 1333lm
System Watts: 15W
LPW: 89

CANDLEPOWER DISTRIBUTION**LUMEN SUMMARY**

Zone	Lumens	% Fixture
0-30°	414	31.0
0-40°	668	50.1
0-60°	1122	84.2
0-90°	1333	100.0
Total Luminaire	0-180°	1333

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	4723	4439	4130
55°	4436	3872	3430
65°	4096	3145	2565
75°	3310	1858	1115
85°	2407	702	702

Go to www.focalpointlights.com for additional photometric data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-20'

Notes: 9/16 TEG TILE

Type:

RP20

LAI16-104794

Seem® 4

LED - REGRESS HIGH PERFORMANCE LENS

FSM4L-SRXP-375LF-35K-LD1-1C-120-G1-WH

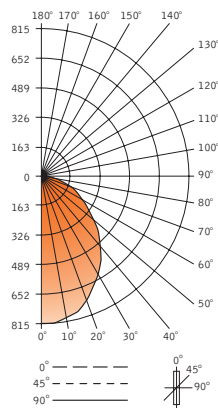
Filename: FSM4LSRXP375LF35K.IES

Test #: 17852.0

Lumens: 1587lm

System Watts: 15W

LPW: 106

CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle				Zonal Lumens
	0°	22.5°	45°	67.5°	90°
0°	812	812	812	812	812
5°	813	813	812	812	77
15°	767	761	755	745	211
25°	671	662	641	619	295
35°	567	553	514	469	318
45°	436	418	362	303	278
55°	305	285	220	180	208
65°	194	169	118	95	131
75°	90	68	45	33	57
85°	22	10	7	7	12
90°	0	0	0	0	0
95°	0	0	0	0	0
105°	0	0	0	0	0
115°	0	0	0	0	0
125°	0	0	0	0	0
135°	0	0	0	0	0
145°	0	0	0	0	0
155°	0	0	0	0	0
165°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30°	583	36.8
0-40°	901	56.8
0-60°	1386	87.4
0-90°	1587	100.0
Total Luminaire	0-180°	1587
		100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal		
	0°	45°	90°
45°	6005	4980	3896
55°	5183	3738	2853
65°	4460	2720	2083
75°	3401	1681	1120
85°	2496	832	832

Go to www.focalpointlights.com for additional photometric data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-24'

Notes: 9/16 TEG TILE

Type:

RP24

LAI16-104794

Seem® 4

LED



trimless mud-in



trim flange



grid



end detail



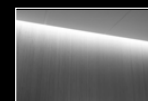
corner detail



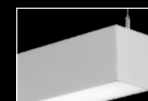
regress lens



wall to ceiling
companion



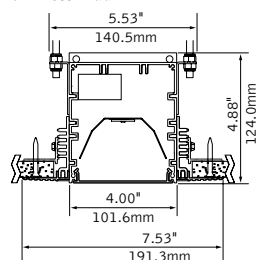
perimeter
companion



suspended
companion

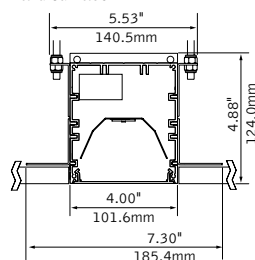
DIMENSIONAL DATA

trimless mud-in



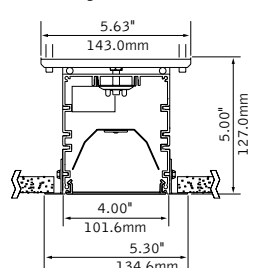
note: 0.375"min - 2.125"max ceiling thickness

hard surface

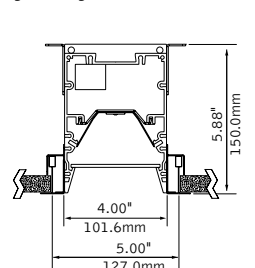


note: 0.375"min - 2.125"max ceiling thickness

trim flange



grid - regress lens shown

**FEATURES**

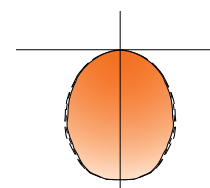
Narrow extruded aluminum 4" aperture recessed slot LED.

Integrates with ceiling or wall in a variety of mounting styles for a clean, unobtrusive aesthetic.

Individual units and continuous runs in 1' increments.

Frosted acrylic lens provides uninterrupted illumination, without pixels or shadows.

LED position and lens material optimized to provide the perfect blend of high performance and visual comfort.

PERFORMANCE

4' Flush Lens
Nominal output:
375 Lumens per foot

Delivered Lumens: 1500lm
Total System Watts: 15W

PRODUCT OVERVIEW

Lumen Output: 1500-4000lm
Wattage: 15-46W
LPW: 77-103
SDCM: 3
Reported Lumen L70 @
Maintenance: >60,000hrs



Photometric performance is measured in accordance with IESNA LM-79. Visit focalpointlights.com for complete photometric data. Visit designlights.org/QPL for model specifics.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-24'

Notes: 9/16 TEG TILE

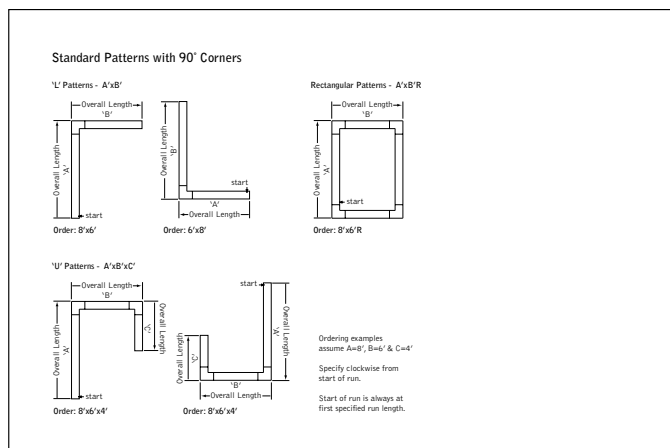
Type:

RP24

LAI16-104794

fixture:

project:

DETAILS**SPECIFICATIONS****LED System**

Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 3000K, 3500K or 4000K with CRI>80, 3SDCM. LED modules and drivers are replaceable from below.

Construction

One piece extruded aluminum housing. 20 Ga. steel end caps. Housing for new construction applications. XFW acceptable for use with wood, consult factory for Type 1C availability. 2' unit weight: 18 lbs., 3' unit weight: 24 lbs., 4' unit weight: 30 lbs., 5' unit weight: 36 lbs.

Optic

Reflectors fabricated of 22 Ga. steel finished in High Reflectance White powder coat. Extruded acrylic lens .085" thick with satin finish, up to 8' continuous.

Electrical

Luminaires are pre-wired with factory installed branch circuit wiring and over-molded quick connects. Standard 120-277V constant current driver includes 0-10V analog dimming. Dimming range 100% to 10%. Power factor >.9.

Emergency Battery

Bodine BSL310-CAN. Emergency output - 10 watts for 90 minutes.

Labels

UL and cUL listed. Suitable for Dry or Damp Locations, indoor use only.

Finish

Polyester powder coat applied over a 5-stage pre-treatment.

Lumen Maintenance

Calculated: L70 at 118,000 hours Reported: L70 at >60,000 hours
Derived from EPA TM-21 calculator based on 10,000 hours of test data.

Warranty

LED system rated for operation in ambient environments up to 25°C. 5 year limited warranty.

4' PERFORMANCE CHART

Shielding	Lumens per Foot	Delivered Lumens	Tested System Watts	LPW
Flush Lens	375LF	1500	15	97
	625LF	2500	26	95
	875LF	3500	39	89
	1000LF	4000	46	86
Regress Lens	375LF	1500	15	86
	625LF	2500	26	84
	875LF	3500	39	80
	1000LF	4000	46	77
Regress High Performance	375LF	1500	15	103
	625LF	2500	26	100
	875LF	3500	39	95
	1000LF	4000	46	91

*Based on 3500K, 4' lengths. *Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

Focal Point LLC reserves the right to change specifications for product improvement without notification.

ORDERING**Luminaire Series**

Seem 4 LED FSM4L

Shielding

Flush Satin Lens FL

Regress Lens SR

(Ceiling applications only)

Regress High Performance Lens SRXP

(Ceiling applications only)

Lumen Output

275 Lumens per foot 275LF

(Not available with Lutron Drivers.)

375 Lumens per foot 375LF

(Not available with LU5 & LH1 Drivers)

625 Lumens per foot 625LF

(FL & SR 3' minimum with LU5 & LH1 Drivers.

SRXP 4' minimum with LU5 & LH1 Drivers.)

875 Lumens per foot 875LF

(SR & SRXP 3' minimum with LU5 & LH1 Drivers)

1000 Lumens per foot 1000LF

(Not available with L3D driver)

Color Temperature

3000K 30K

3500K 35K

4000K 40K

Circuit

Single Circuit 1C

Voltage

120 Volt 120

277 Volt 277

UNV Volt UNV

(Cannot be specified with EM option)

Driver

(See driver reference for driver quantities)

0-10V - 10% Dimming LD1

0-10V - 1% Dimming L11

Lutron A-Series L3D

1% EcoSystem Digital

(Consult factory for 3-wire control)

Lutron H-Series 1% Dimming LH1

Lutron 5-Series LU5

5% EcoSystem Digital

DALI 1% Dimming D11

Ceiling Configuration

Std. 15/16" Lay-in G1

Std. 15/16" Tegular T1

Std. 9/16" Lay-in G2

Std. 9/16" Tegular T2

9/16" Slot-tee Tegular G3

Tall 15/16" Lay-in G4

Tall 15/16" Tegular T4

Tall 9/16" Lay-in G5

Tall 9/16" Tegular T5

Node 9/16" Tegular T6

Trim Flange Drywall TF

(3' minimum with Lutron Drivers)

Trim Flange Wood TFW

(3' minimum with Lutron Drivers)

Mud-in Trimless, XF1

pre-set for 1/2" Drywall

Mud-in Trimless, XF2

pre-set for 5/8" Drywall

Mud-in Trimless, XFF

set thickness in field

(Mounting equipment assembled in field)

Non-Drywall Hard Surface XFN

Hard Surface, Wood XFW

Factory Options

Chicago Plenum CP

Emergency Circuit* EC

Emergency Battery Pack* EM

(4' lengths or longer, not available at corners)

6' New York City Flex Whip FNY

6' Flex Whip FW

Finish

Matte White Housing WH

Luminaire Length

(Leave blank for patterns. Lengths are nominal)

Specify luminaire/row X'

length in 1' increments

(Smaller increments available.

Consult factory for details.)

Pattern Options

(3' minimum length)

'L' pattern A' x B'

'U' pattern A' x B' x C'

Rectangular pattern A' x B'R

(Consult factory for other pattern options)



*For more information visit focalpointlights.com/reference or consult factory.
Quickship is a limited offering, visit focalpointlights.com/quickship for specifics.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-24'

Notes: 9/16 TEG TILE

Type:

RP24

LAI16-104794

Seem® 4

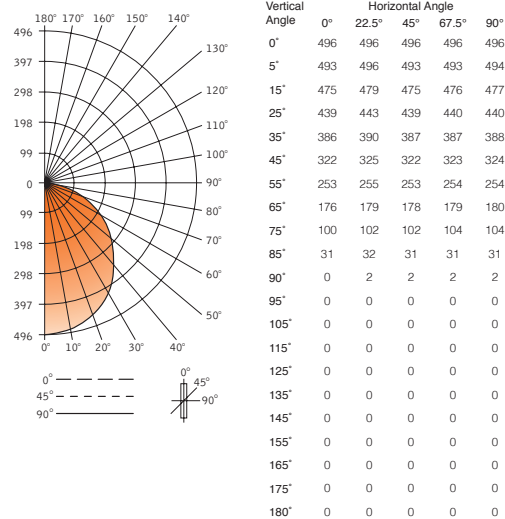
LED - FLUSH LENS

FSM4L-FL-375LF-35K-1C-UNV-LD1-G1-CP-WH-4'

Filename: FSM4LFL375LF35K.IES
Test #: 11499493.01

Lumens: 1423lm
System Watts: 15W
LPW: 95

CANDLEPOWER DISTRIBUTION



LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30°	384	27.0
0-40°	627	44.1
0-60°	1103	77.5
0-90°	1423	100.00
Total Luminaire	0-180°	1423

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	3757	3760	3774
55°	3634	3642	3657
65°	3441	3473	3506
75°	3193	3261	3313
85°	2923	2967	2970

Go to www.focalpointlights.com for additional photometric data.

Seem® 4

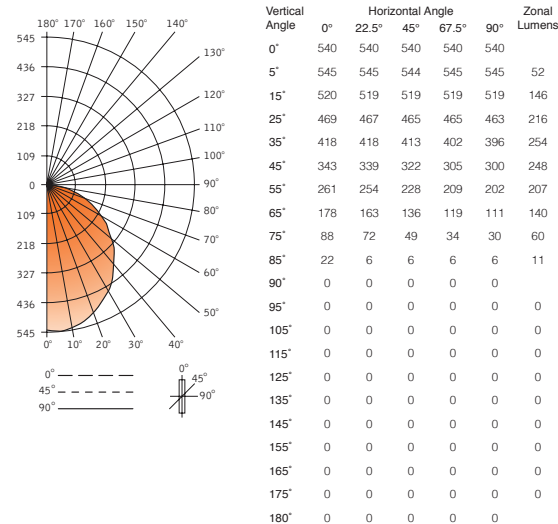
LED - REGRESS LENS

FSM4L-SR-375LF-35K-LD1-1C-120-G1-WH

Filename: FSM4LSR375LF35K.IES
Test #: 17847.0

Lumens: 1333lm
System Watts: 15W
LPW: 89

CANDLEPOWER DISTRIBUTION



LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30°	414	31.0
0-40°	668	50.1
0-60°	1122	84.2
0-90°	1333	100.0
Total Luminaire	0-180°	1333

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	4723	4439	4130
55°	4436	3872	3430
65°	4096	3145	2565
75°	3310	1858	1115
85°	2407	702	702

Go to www.focalpointlights.com for additional photometric data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-24'

Notes: 9/16 TEG TILE

Type:

RP24

LAI16-104794

Seem® 4

LED - REGRESS HIGH PERFORMANCE LENS

FSM4L-SRXP-375LF-35K-LD1-1C-120-G1-WH

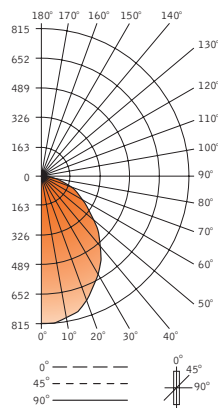
Filename: FSM4LSRXP375LF35K.IES

Test #: 17852.0

Lumens: 1587lm

System Watts: 15W

LPW: 106

CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle				Zonal Lumens
	0°	22.5°	45°	67.5°	90°
0°	812	812	812	812	812
5°	813	813	812	812	77
15°	767	761	755	745	211
25°	671	662	641	619	295
35°	567	553	514	469	318
45°	436	418	362	303	278
55°	305	285	220	180	208
65°	194	169	118	95	131
75°	90	68	45	33	57
85°	22	10	7	7	12
90°	0	0	0	0	0
95°	0	0	0	0	0
105°	0	0	0	0	0
115°	0	0	0	0	0
125°	0	0	0	0	0
135°	0	0	0	0	0
145°	0	0	0	0	0
155°	0	0	0	0	0
165°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30°	583	36.8
0-40°	901	56.8
0-60°	1386	87.4
0-90°	1587	100.0
Total Luminaire	0-180°	1587
		100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal	
	0°	45°
45°	6005	4980
55°	5183	3738
65°	4460	2720
75°	3401	1681
85°	2496	832

Go to www.focalpointlights.com for additional photometric data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-28'

Notes: 9/16 TEG TILE

Type:

RP28

LAI16-104794

Seem® 4

LED



trimless mud-in



trim flange



grid



end detail



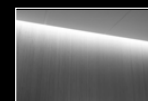
corner detail



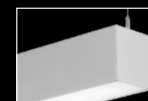
regress lens



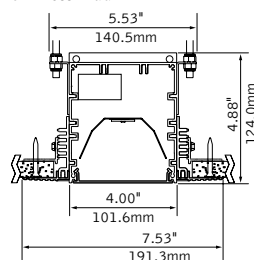
wall to ceiling
companion



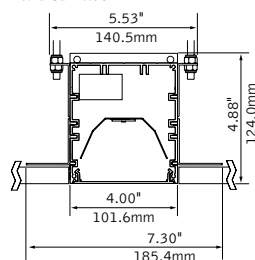
perimeter
companion



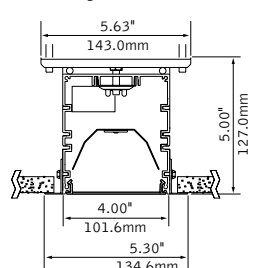
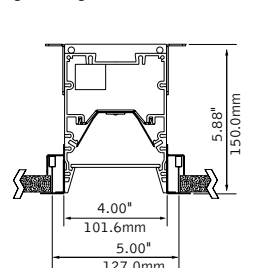
suspended
companion

DIMENSIONAL DATA**trimless mud-in**

note: 0.375"min - 2.125"max ceiling thickness

hard surface

note: 0.375"min - 2.125"max ceiling thickness

trim flange**grid - regress lens shown****FEATURES**

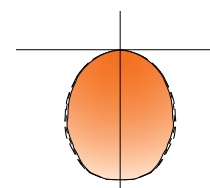
Narrow extruded aluminum 4" aperture recessed slot LED.

Integrates with ceiling or wall in a variety of mounting styles for a clean, unobtrusive aesthetic.

Individual units and continuous runs in 1' increments.

Frosted acrylic lens provides uninterrupted illumination, without pixels or shadows.

LED position and lens material optimized to provide the perfect blend of high performance and visual comfort.

PERFORMANCE

4' Flush Lens
Nominal output:
375 Lumens per foot

Delivered Lumens: 1500lm
Total System Watts: 15W

PRODUCT OVERVIEW

Lumen Output: 1500-4000lm
Wattage: 15-46W
LPW: 77-103
SDCM: 3
Reported Lumen L70 @
Maintenance: >60,000hrs



Photometric performance is measured in accordance with IESNA LM-79. Visit focalpointlights.com for complete photometric data. Visit designlights.org/QPL for model specifics.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-28'

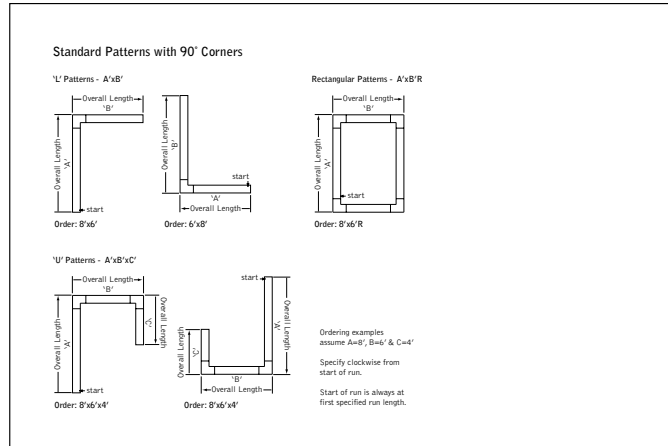
Notes: 9/16 TEG TILE

Type:**RP28**

LAI16-104794

fixture:

project:

DETAILS**SPECIFICATIONS****LED System**

Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 3000K, 3500K or 4000K with CRI>80, 3SDCM. LED modules and drivers are replaceable from below.

Construction

One piece extruded aluminum housing. 20 Ga. steel end caps. Housing for new construction applications. XFW acceptable for use with wood, consult factory for Type 1C availability. 2' unit weight: 18 lbs., 3' unit weight: 24 lbs., 4' unit weight: 30 lbs., 5' unit weight: 36 lbs.

Optic

Reflectors fabricated of 22 Ga. steel finished in High Reflectance White powder coat. Extruded acrylic lens .085" thick with satin finish, up to 8' continuous.

Electrical

Luminaires are pre-wired with factory installed branch circuit wiring and over-molded quick connects. Standard 120-277V constant current driver includes 0-10V analog dimming. Dimming range 100% to 10%. Power factor >.9.

Emergency Battery

Bodine BSL310-CAN. Emergency output - 10 watts for 90 minutes.

Labels

UL and cUL listed. Suitable for Dry or Damp Locations, indoor use only.

Finish

Polyester powder coat applied over a 5-stage pre-treatment.

Lumen Maintenance

Calculated: L70 at 118,000 hours Reported: L70 at >60,000 hours
Derived from EPA TM-21 calculator based on 10,000 hours of test data.

Warranty

LED system rated for operation in ambient environments up to 25°C. 5 year limited warranty.

4' PERFORMANCE CHART

Shielding	Lumens per Foot	Delivered Lumens	Tested System Watts	LPW
Flush Lens	375LF	1500	15	97
	625LF	2500	26	95
	875LF	3500	39	89
	1000LF	4000	46	86
Regress Lens	375LF	1500	15	86
	625LF	2500	26	84
	875LF	3500	39	80
	1000LF	4000	46	77
Regress High Performance	375LF	1500	15	103
	625LF	2500	26	100
	875LF	3500	39	95
	1000LF	4000	46	91

*Based on 3500K, 4' lengths. *Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

Focal Point LLC reserves the right to change specifications for product improvement without notification.

ORDERING**Luminaire Series**

Seem 4 LED FSM4L

Shielding

Flush Satin Lens FL

Regress Lens SR

(Ceiling applications only)

Regress High Performance Lens SRXP

(Ceiling applications only)

Lumen Output

275 Lumens per foot 275LF

(Not available with Lutron Drivers.)

375 Lumens per foot 375LF

(Not available with LU5 & LH1 Drivers)

625 Lumens per foot 625LF

(FL & SR 3' minimum with LU5 & LH1 Drivers.)

SRXP 4' minimum with LU5 & LH1 Drivers.)

875 Lumens per foot 875LF

(SR & SRXP 3' minimum with LU5 & LH1 Drivers)

1000 Lumens per foot 1000LF

(Not available with L3D driver)

Color Temperature

3000K 30K

3500K 35K

4000K 40K

Circuit

Single Circuit 1C

Voltage

120 Volt 120

277 Volt 277

UNV Volt UNV

(Cannot be specified with EM option)

Driver

(See driver reference for driver quantities)

0-10V - 10% Dimming LD1

0-10V - 1% Dimming L11

Lutron A-Series L3D

1% EcoSystem Digital

(Consult factory for 3-wire control)

Lutron H-Series 1% Dimming LH1

Lutron 5-Series LU5

5% EcoSystem Digital

DALI 1% Dimming D11

Ceiling Configuration

Std. 15/16" Lay-in G1

Std. 15/16" Tegular T1

Std. 9/16" Lay-in G2

Std. 9/16" Tegular T2

9/16" Slot-tee Tegular G3

Tall 15/16" Lay-in G4

Tall 15/16" Tegular T4

Tall 9/16" Lay-in G5

Tall 9/16" Tegular T5

Node 9/16" Tegular T6

Trim Flange Drywall TF

(3' minimum with Lutron Drivers)

Trim Flange Wood TFW

(3' minimum with Lutron Drivers)

Mud-in Trimless, XF1

pre-set for 1/2" Drywall XF2

Mud-in Trimless, XFF

pre-set for 5/8" Drywall

Mud-in Trimless, set thickness in field

(Mounting equipment assembled in field)

Non-Drywall Hard Surface XFN

Hard Surface, Wood XFW

Factory Options

Chicago Plenum CP

Emergency Circuit* EC

Emergency Battery Pack* EM

(4' lengths or longer, not available at corners)

6' New York City Flex Whip FNY

6' Flex Whip FW

Finish

Matte White Housing WH

Luminaire Length

(Leave blank for patterns. Lengths are nominal)

Specify luminaire/row length in 1' increments X'

(Smaller increments available. Consult factory for details.)

Pattern Options

(3' minimum length)

'L' pattern A' x B'

'U' pattern A' x B' x C'

Rectangular pattern A' x B'R

(Consult factory for other pattern options)

QS 10 DAY*

*For more information visit focalpointlights.com/reference or consult factory.
Quickship is a limited offering, visit focalpointlights.com/quickship for specifics.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-28'

Notes: 9/16 TEG TILE

Type:

RP28

LAI16-104794

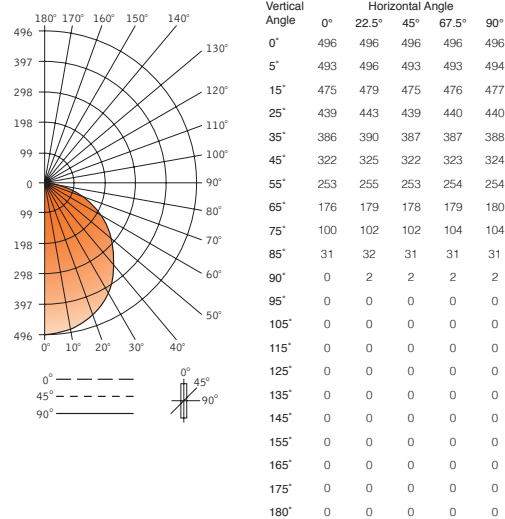
Seem® 4

LED - FLUSH LENS

FSM4L-FL-375LF-35K-1C-UNV-LD1-G1-CP-WH-4'

Filename: FSM4LFL375LF35K.IES
Test #: 11499493.01

Lumens: 1423lm
System Watts: 15W
LPW: 95

CANDLEPOWER DISTRIBUTION**LUMEN SUMMARY**

Zone	Lumens	% Fixture
0-30°	384	27.0
0-40°	627	44.1
0-60°	1103	77.5
0-90°	1423	100.00
Total Luminaire	0-180°	1423

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	3757	3760	3774
55°	3634	3642	3657
65°	3441	3473	3506
75°	3193	3261	3313
85°	2923	2967	2970

Go to www.focalpointlights.com for additional photometric data.

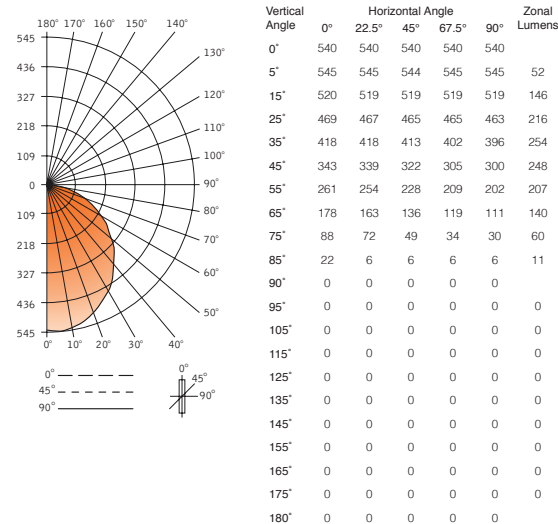
Seem® 4

LED - REGRESS LENS

FSM4L-SR-375LF-35K-LD1-1C-120-G1-WH

Filename: FSM4LSR375LF35K.IES
Test #: 17847.0

Lumens: 1333lm
System Watts: 15W
LPW: 89

CANDLEPOWER DISTRIBUTION**LUMEN SUMMARY**

Zone	Lumens	% Fixture
0-30°	414	31.0
0-40°	668	50.1
0-60°	1122	84.2
0-90°	1333	100.0
Total Luminaire	0-180°	1333

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	4723	4439	4130
55°	4436	3872	3430
65°	4096	3145	2565
75°	3310	1858	1115
85°	2407	702	702

Go to www.focalpointlights.com for additional photometric data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

FSM4L-SR-875LF-30K-1C-277-LD1-
T2-WH-28'

Notes: 9/16 TEG TILE

Type:

RP28

LAI16-104794

Seem® 4

LED - REGRESS HIGH PERFORMANCE LENS

FSM4L-SRXP-375LF-35K-LD1-1C-120-G1-WH

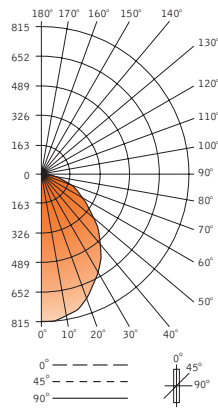
Filename: FSM4LSRXP375LF35K.IES

Test #: 17852.0

Lumens: 1587lm

System Watts: 15W

LPW: 106

CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle				Zonal Lumens
	0°	22.5°	45°	67.5°	90°
0°	812	812	812	812	812
5°	813	813	812	812	77
15°	767	761	755	745	211
25°	671	662	641	619	295
35°	567	553	514	469	318
45°	436	418	362	303	278
55°	305	285	220	180	208
65°	194	169	118	95	131
75°	90	68	45	33	57
85°	22	10	7	7	12
90°	0	0	0	0	0
95°	0	0	0	0	0
105°	0	0	0	0	0
115°	0	0	0	0	0
125°	0	0	0	0	0
135°	0	0	0	0	0
145°	0	0	0	0	0
155°	0	0	0	0	0
165°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30°	583	36.8
0-40°	901	56.8
0-60°	1386	87.4
0-90°	1587	100.0
Total Luminaire	0-180°	1587
		100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal	
	0°	45°
45°	6005	4980
55°	5183	3738
65°	4460	2720
75°	3401	1681
85°	2496	832

Go to www.focalpointlights.com for additional photometric data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-16'-S-3000K-F-277V-SC-
DIM(4X4)-SF

Notes: DRYWALL CEILING

Type:

RR4X4

LAI16-104794

IC - RATED

LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed



Date

Project

Type

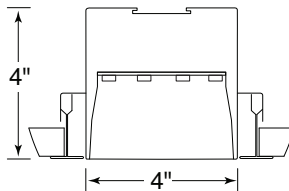
Comments



16FT LINEAR LENGTH
4FT X 4FT SQUARE

DESCRIPTION

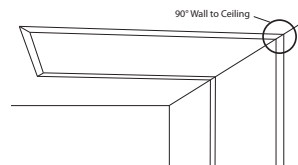
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting 10 working days

TAILORED LIGHTING

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32''$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32''$), standard)

Light Output **S - Standard Output** B - Boosted Standard Output,

H - High Output, V - Very High Output

LED CRI **8 - 80 CRI Min (standard)** 9 - 90 CRI Min (optional)

LED Color Temperature **30 - 3000K** 35 - 3500K, 40 - 4000K

Downlight Diffuser Option **F - Flush (standard)**

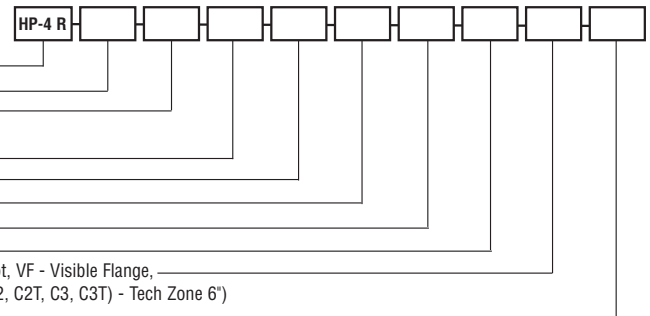
Voltage (120V, **277V**)

Circuiting **SC - Single Circuit**

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - Screw Slot, **C3F - Flush Screw Slot**, VF - Visible Flange,

C2T - 9/16" Tegular, C1T - 1" Tegular, **SF - Spackle Flange** TZ6 (C1, C2, C2T, C3, C3T) - Tech Zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-16'-S-3000K-F-277V-SC-
DIM(4X4)-SF

Notes: DRYWALL CEILING

Type:

RR4X4

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy (Lumen per watt): 102.1

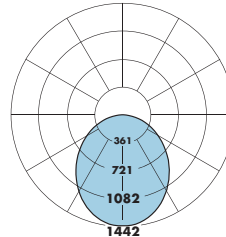
Total luminaire output: 3726 Lumens (932 lumens/foot)

37.7 Watts (9.4 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire			
S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)			
S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)			
S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)			
S*	B*	H*	V**
105.1	104.1	102.2	100.7

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

SAMPLE LUMEN ADJUSTMENT CALCULATION

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80.1 \text{ lm/W}$$

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-16'-S-3000K-F-277V-SC-
DIM(4X4)-SF

Notes: DRYWALL CEILING

Type:

RR4X4

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

SPECIFICATIONS

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum lens length. Flush frost white snap-in lens standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in lens option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: ≥0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Factory-choice low-profile backup battery available. 8' minimum fixture length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum fixture length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when fixture current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32").

LABELS: Fixture and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-16'-S-3000K-F-277V-SC-
DIM(4X4)-SF

Notes: DRYWALL CEILING

Type:

RR4X4

LAI16-104794

IC - RATED

LED



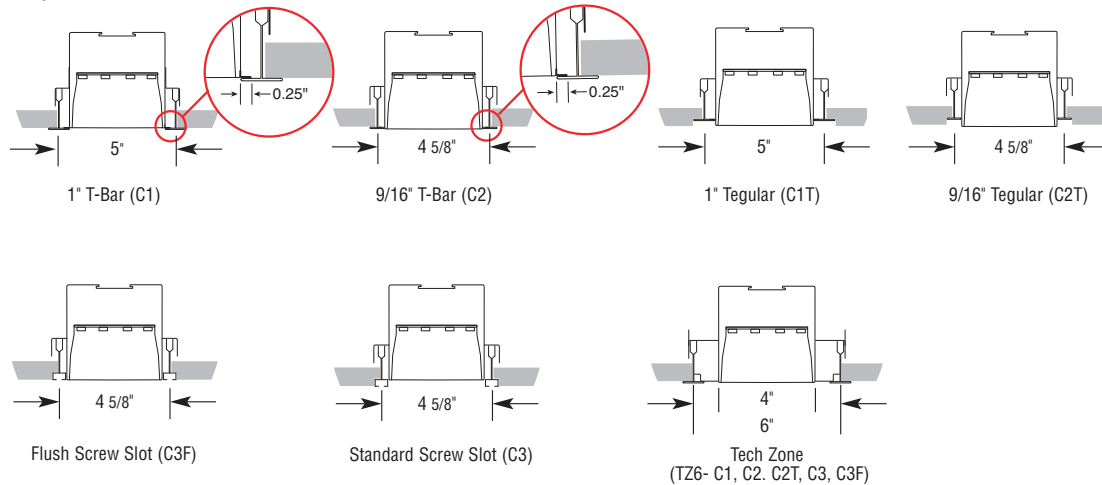
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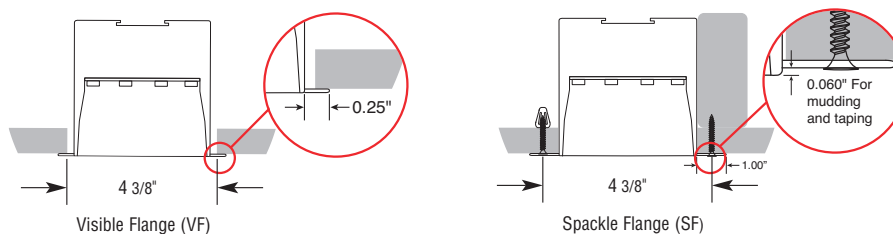
High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

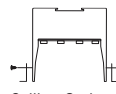


MOUNTING TYPES: CUTOUT DIMENSIONS



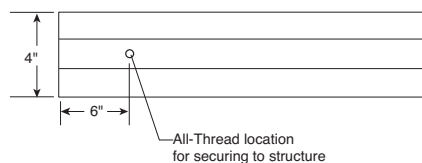
Housing With Extruded Flange (V1)

Ceiling Options
C1, C2, C3, VF



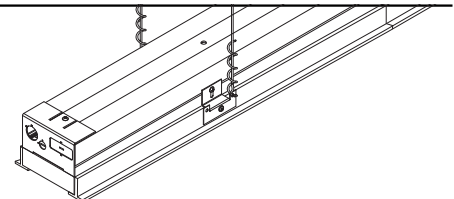
Housing Without Extruded Flange (V2)

Ceiling Options
C1T, C2T, C3F, SF, TZ6



SHEET ROCK INSTALLATION:

Flex conduit is secured to top of fixture. Support to structure using All-Thread. All-Thread support holes are located on each end of the fixture.



T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the fixture to T-Bar and provide support to structure location. All starter/independent fixtures are 1 1/8" shorter than nominal. All joiner/ender fixture are normal length.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-20'-S-3000K-F-277V-SC-
DIM(4X6)-C3F

Notes: DRYWALL CEILING

Type:

RR4X6 9/16 TEG

LAI16-104794

IC - RATED

LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed



Date

Project

Type

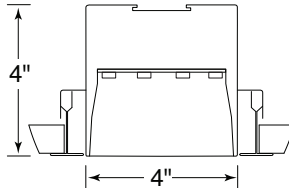
Comments



20FT LINEAR LENGTH
4FT X 6FT RECTANGLE

DESCRIPTION

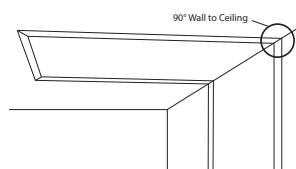
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting 10 working days

TAILORED LIGHTING

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output **S - Standard Output** B - Boosted Standard Output,

H - High Output, V - Very High Output

LED CRI **8 - 80 CRI Min (standard)** 9 - 90 CRI Min (optional)

LED Color Temperature **30 - 3000K** 35 - 3500K, 40 - 4000K

Downlight Diffuser Option **(F - Flush (standard))**

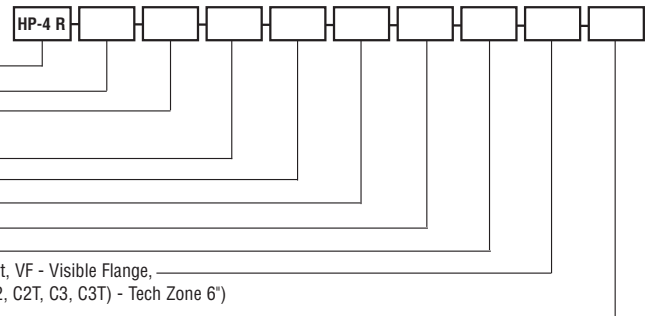
Voltage (120V, **277V**)

Circuiting **(SC - Single Circuit)**

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - Screw Slot, C3F - Flush Screw Slot, VF - Visible Flange,

C2T - 9/16" Tegular, C1T - 1" Tegular, **SF - Spackle Flange** TZ6 (C1, C2, C2T, C3, C3T) - Tech Zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-20'-S-3000K-F-277V-SC-
DIM(4X6)-C3F

Notes: DRYWALL CEILING

Type:

RR4X6 9/16 TEG

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

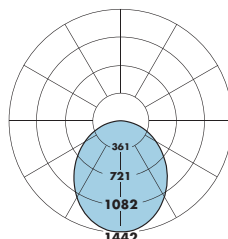
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

*Total Light Output =
2898 lm x 0.789 = 2287 lm*

*Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft*

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-20'-S-3000K-F-277V-SC-
DIM(4X6)-C3F

Notes: DRYWALL CEILING

Type:

RR4X6 9/16 TEG

LAI16-104794

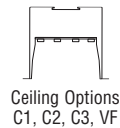


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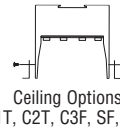
FINELITE

High Performance 4" Aperture (HP-4) - Recessed

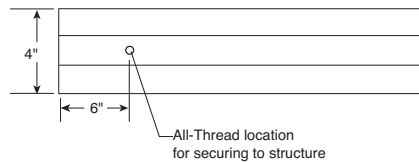
HOUSING



Housing With
Extruded Flange (V1)

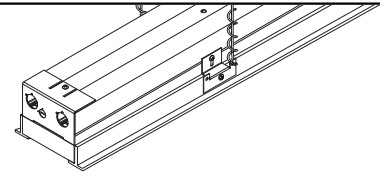


Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached



SHEET ROCK INSTALLATION:

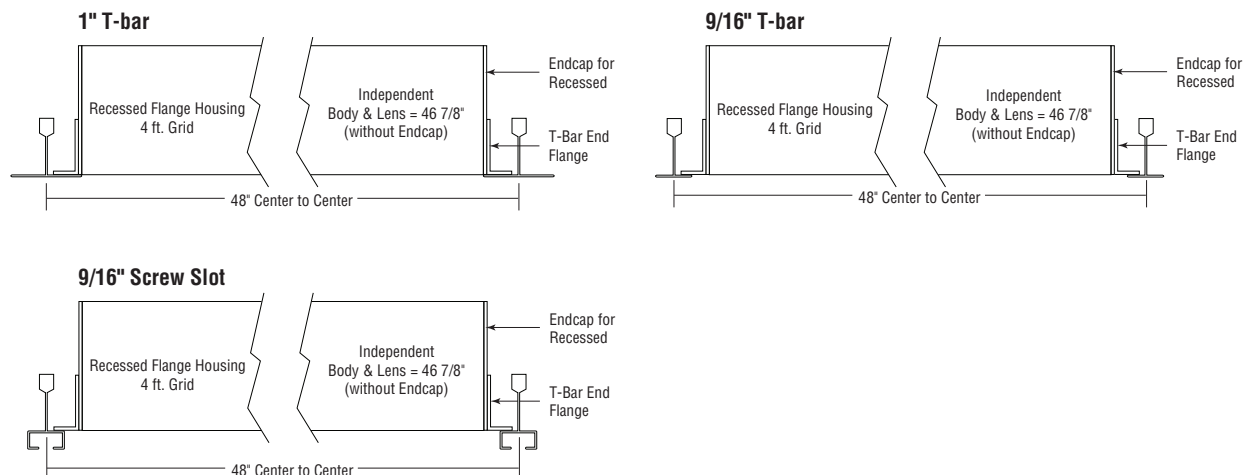
Flex conduit is secured to top of luminaire. Support to structure using All-Thread. All-Thread support holes are located on each end of the luminaire.



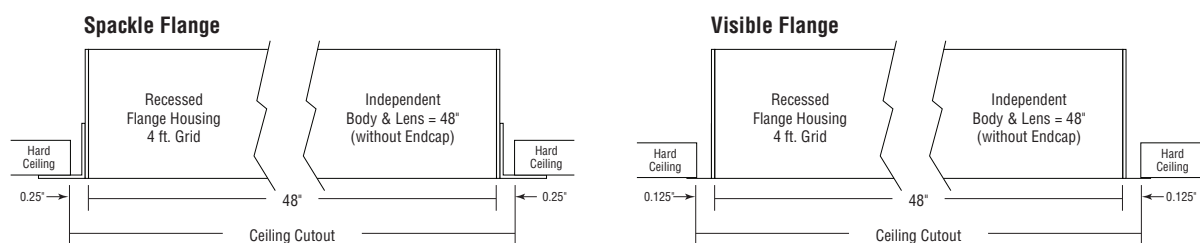
T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example



HARD CEILING LENGTH DETAIL - 4 ft. example



Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-20"-S-3000K-F-277V-SC-
DIM(4X6)-C3F

Notes: DRYWALL CEILING

Type:

RR4X6 9/16 TEG

LAI16-104794

IC - RATED

LED



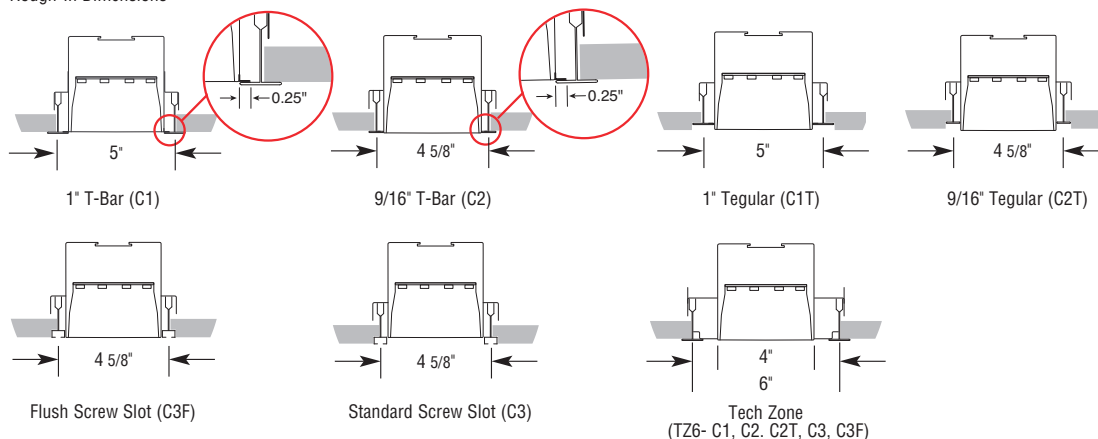
BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

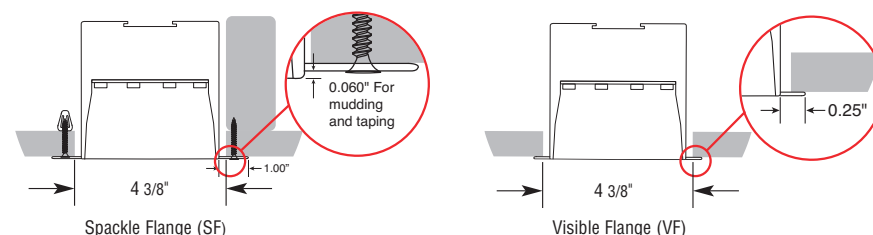
High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions



MOUNTING TYPES: CUTOUT DIMENSIONS



SPECIFICATIONS

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-20'-S-3000K-F-277V-SC-DIM-
NL(4X6)-SF

Notes: DRYWALL CEILING

Type:

RR4X6-DRYWALL

LAI16-104794

IC - RATED

LED



BUY AMERICAN ACT OF 2009 COMPLIANT

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High Performance 4" Aperture (HP-4) - Recessed



Date

Project

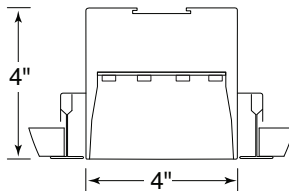
Type

Comments

20FT LINEAR LENGTH
4FT X 6FT RECTANGLE

**DESCRIPTION**

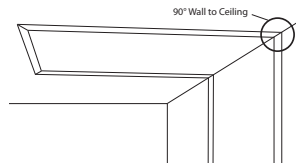
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting 10 working days

TAILORED LIGHTING

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

NL = NIGHT LIGHT CIRCUIT

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output **S - Standard Output** B - Boosted Standard Output,

H - High Output, V - Very High Output

LED CRI **8 - 80 CRI Min (standard)** 9 - 90 CRI Min (optional)

LED Color Temperature **30 - 3000K** 35 - 3500K, 40 - 4000K

Downlight Diffuser Option **F - Flush (standard)**

Voltage (120V, **277V**)

Circuiting **SC - Single Circuit**

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - Screw Slot, C3F - Flush Screw Slot, VF - Visible Flange,

C2T - 9/16" Tegular, C1T - 1" Tegular, **SF - Spackle Flange** TZ6 (C1, C2, C2T, C3, C3T) - Tech Zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)

*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-20'-S-3000K-F-277V-SC-DIM-
NL(4X6)-SF

Notes: DRYWALL CEILING

Type:

RR4X6-DRYWALL

LAI16-104794



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High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

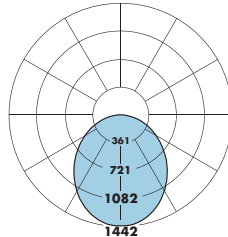
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

*Total Light Output =
2898 lm x 0.789 = 2287 lm*

*Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft*

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-20'-S-3000K-F-277V-SC-DIM-
NL(4X6)-SF

Notes: DRYWALL CEILING

Type:

RR4X6-DRYWALL

LAI16-104794

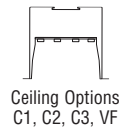


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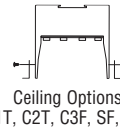
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High Performance 4" Aperture (HP-4) - Recessed

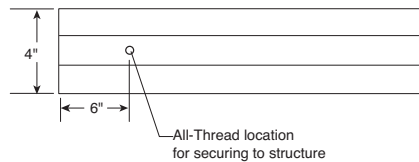
HOUSING



Housing With
Extruded Flange (V1)



Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached



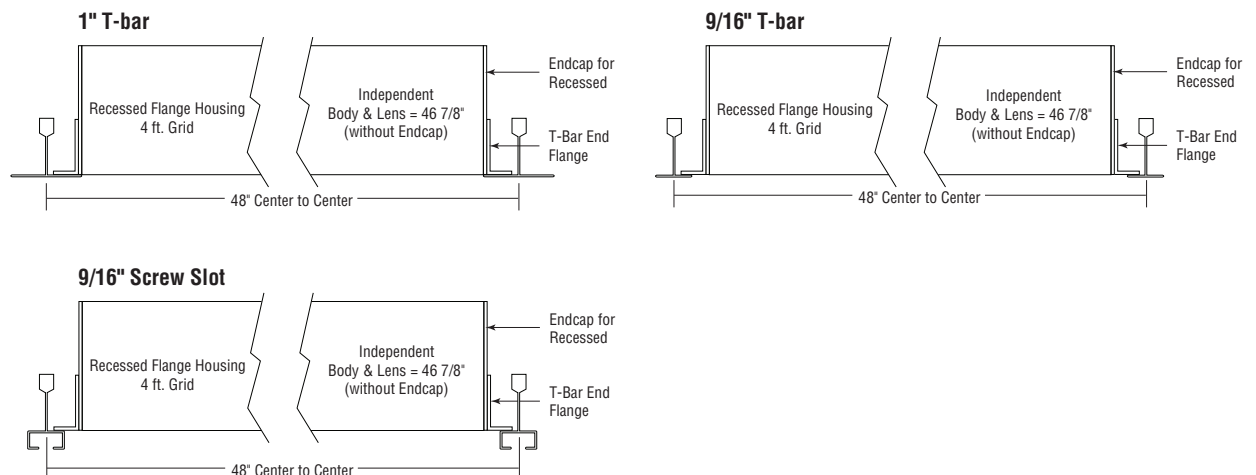
SHEET ROCK INSTALLATION:

Flex conduit is secured to top of luminaire. Support to structure using All-Thread. All-Thread support holes are located on each end of the luminaire.

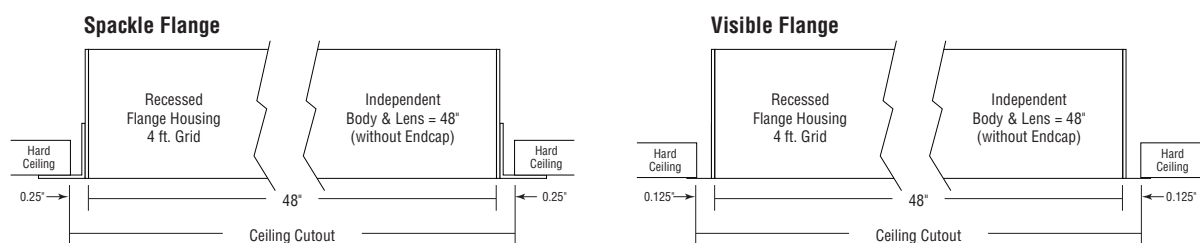
T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example



HARD CEILING LENGTH DETAIL - 4 ft. example



Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-20'-S-3000K-F-277V-SC-DIM-
NL(4X6)-SF

Notes: DRYWALL CEILING

Type:

RR4X6-DRYWALL

LAI16-104794

IC - RATED

LED



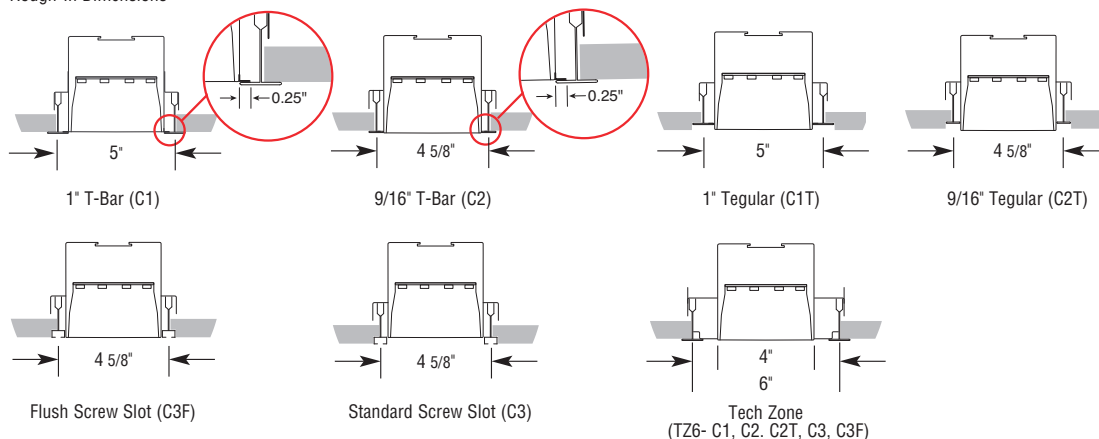
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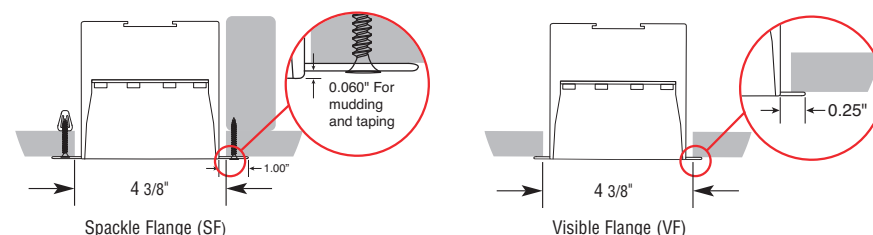
High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions



MOUNTING TYPES: CUTOUT DIMENSIONS



SPECIFICATIONS

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-C3F-
DIM-.1%

Notes:

Type:**RS8**

LAI16-104794

IC - RATED

LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type

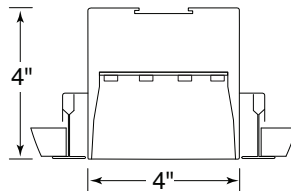
Comments



16FT LINEAR LENGTH
4FT X 4FT SQUARE

DESCRIPTION

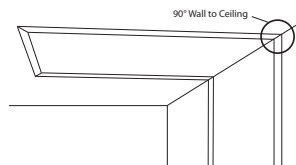
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting
10 working days

TAILORED LIGHTING

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output **S - Standard Output** B - Boosted Standard Output,

H - High Output, V - Very High Output

LED CRI **8 - 80 CRI Min (standard)** 9 - 90 CRI Min (optional)

LED Color Temperature **30 - 3000K** 35 - 3500K, 40 - 4000K

Downlight Diffuser Option **(F - Flush (standard))**

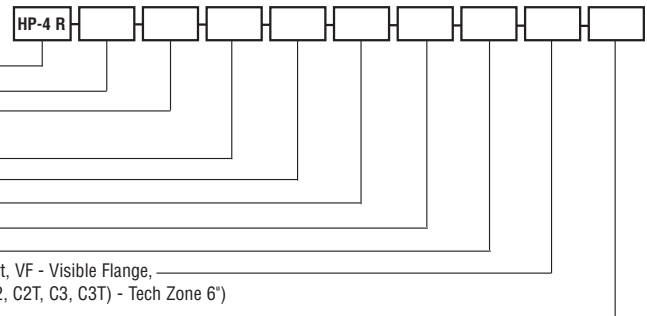
Voltage (120V, **277V**)

Circuiting **(SC - Single Circuit)**

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - Screw Slot, C3F - Flush Screw Slot, VF - Visible Flange,

C2T - 9/16" Tegular, C1T - 1" Tegular, **SF - Spackle Flange** TZ6 (C1, C2, C2T, C3, C3T) - Tech Zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

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Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-C3F-
DIM-.1%

Notes:

Type:**RS8**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

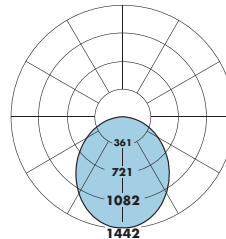
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2898 lm x 0.789 = 2287 lm

Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

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Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-8'-H-3000K-F-277V-SC-C3F-
DIM-.1%

Notes:

Type:**RS8**

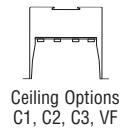
LAI16-104794



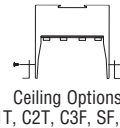
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FINELITE

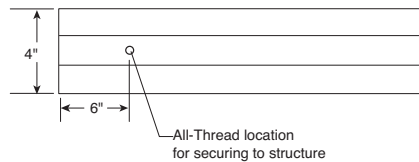
High Performance 4" Aperture (HP-4) - Recessed

HOUSING

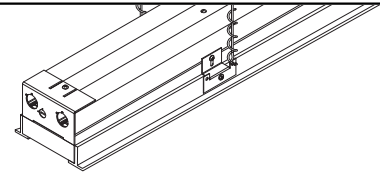
Housing With
Extruded Flange (V1)



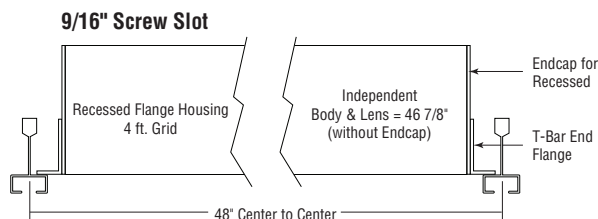
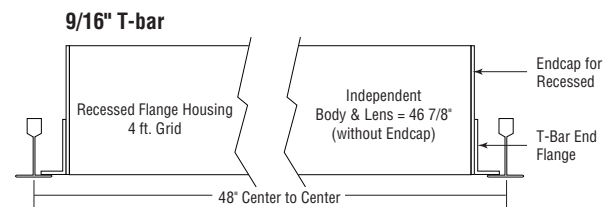
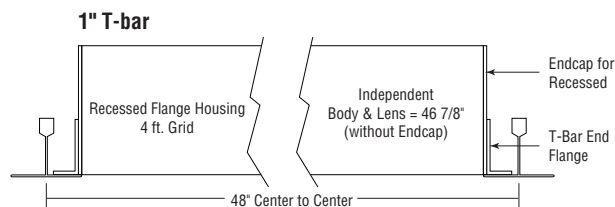
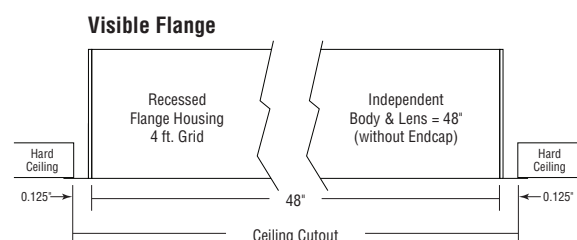
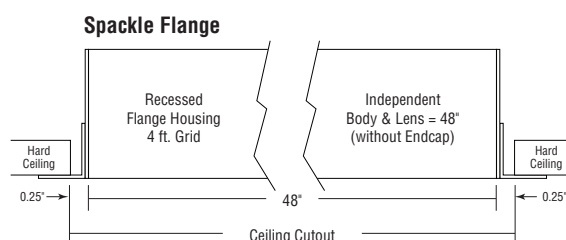
Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached

**SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

**T-BAR INSTALLATION:**

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-8"-H-3000K-F-277V-SC-C3F-
DIM-.1%

Notes:

Type:**RS8**

LAI16-104794

IC - RATED

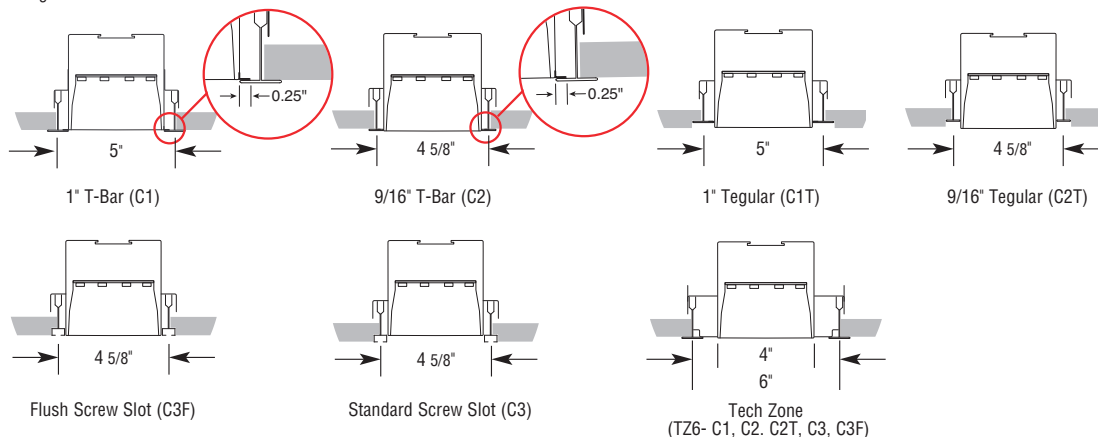
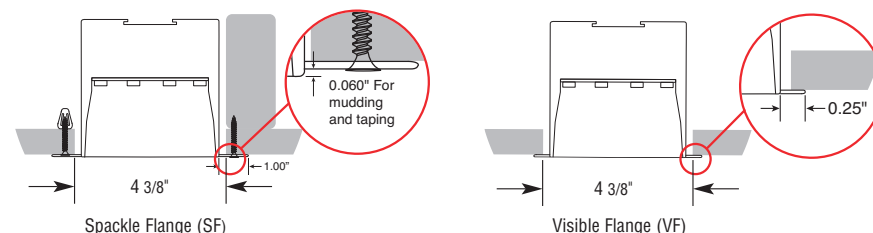
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed****MOUNTING TYPES: T-BAR**

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

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WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

AUCLED-I-MW-11L30K-24"-120V-MS-
SW

Notes:

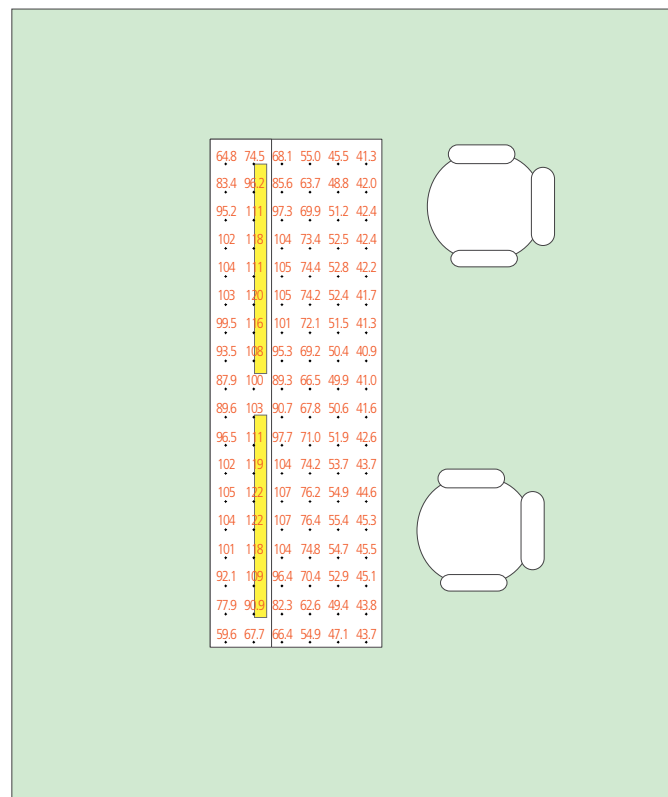
Type:**UA2**

LAI16-104794

For additional photometry, go to www.kenall.com**STRATALUME CONNECTS™****AUC/MAUC SERIES – LED****PERFORMANCE**

Lamp Type	Initial Delivered Lumens		Input Power (W)	Drive Current (mA)	Estd. L70 LED Life (hrs)
	@ 25°C (lm)	Efficacy (lm/W)			
11L30K	700	54	13	117	92,000
11L35K	700	54	13	117	92,000
11L40K	803	62	13	117	92,000
16L30K	993	55	18	117	92,000
16L35K	993	55	18	117	92,000
16L40K	1140	63	18	117	92,000
20L30K	1287	56	23	117	92,000
20L35K	1287	56	23	117	92,000
20L40K	1473	64	23	117	92,000

Displayed information above is for selected luminaires only. Additional wattages and color temperatures are also available. Visit www.kenall.com for additional information.

TYPICAL LIGHTING LAYOUT (TASK LIGHTING ONLY)

Illuminance	(Fc)
Average	52.96
Maximum	102
Minimum	9.6
Ave/Min Ratio	5.52
Max/Min Ratio	10.63

Product shown: (2) 48" AUCLED with 20L35K lamp.

Calculations are based on 9' ceiling height, 30" task plane, shelf height 20" above task plane, 90/60/20 room reflectance, and 0.80 LLF.


www.kenall.com

P: 800-4-Kenall

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AUC_MAUC-LED-090116

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

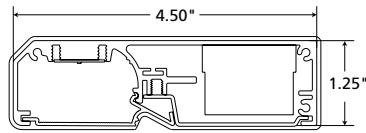
Catalog Number:

AUCLED-I-MW-11L30K-24"-120V-MS-
SW

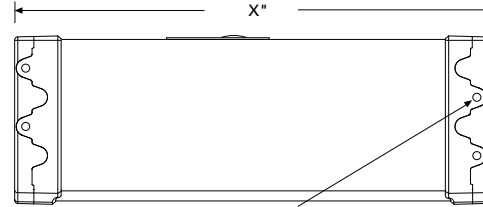
Notes:

Type:**UA2**

LAI16-104794

For additional photometry, go to www.kenall.com**STRATALUME CONNECTS™****AUC/MAUC SERIES – LED****DIMENSIONAL DATA**

Solid Front



(4) 0.188" Mounting Holes

LENGTH DIMENSION

MODEL	LENGTH	X (in)	Max Current	
			120V	277V
11L	18"	18.00	0.11	0.05
11L	24"	24.00	0.11	0.05
16L	36"	36.00	0.15	0.07
20L	48"	48.00	0.19	0.09
WML	—	6.00		
WML/HGO	—	8.00		
WML/SW	—	6.00		

NOTE: Subtract 0.54" for each end cover removed to get overall length in series mount applications. When ordering the power or interconnect cordset, allow at least 2" clearance on the side of the fixture. To calculate maximum allowable fixtures in a series run, divide 6 amps maximum current by the maximum current of each fixture.

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AUC_MAUC-LED-090116

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SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

AUCLED-I-MW-20L30K-48"-120V-MS-
SW

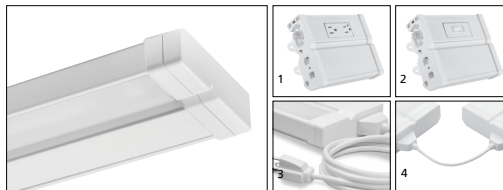
Notes:

Type:**UA4**

LAI16-104794

STRATALUME CONNECTS™**AUC/MAUC SERIES – LED****PRODUCT FEATURES:**

- » Available in multiple lengths to fit any application
- » External mounting feet allow for easy installation
- » Antimicrobial finish standard when used in Healthcare applications



1 Wiring Module w/ Hospital Grade Outlet
2 Wiring Module w/ Rocker Switch
3 Power Cordset
4 Interconnect Cordset

PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____

SPECIFICATIONS

HOUSING: Extruded marine-grade aluminum. TGIC polyester powder coat finish with five-step pretreatment. Antimicrobial finish standard on housing and driver cover with MAUC series only.

LENS: UV-stabilized, high-impact resistant, extruded frost 100% DR acrylic. Smooth exterior, linear prism interior. Snap-in tool-less entry design.

END CAPS/COVERS: UV-stabilized, high-impact resistant, injection-molded white or black opaque polycarbonate. Black end caps/covers provided when silver finish (SL) is ordered. Light leak-preventing interlocking design.

GASKET: Closed-cell extruded EPDM gasket seals lens to end caps.

ELECTRICAL: LED array with electrically-isolated thermal pads. Maximum 3-step MacAdam variation allowance. See Ordering Information for color temperature options. 80CRI minimum. 120-277VAC, 50/60Hz input with replaceable high power factor electronic constant-current driver (<20% THD, >0.90 PF). Standard 0-10V dimming with 5-100% range. EMC meets or exceeds FCC CFR Part 15. Male and female grounded connectors provided at ends of series-mount fixtures. See Options and Accessories for additional electrical capabilities.

ELECTRICAL ACCESSORIES: Wiring modules available with 15 amp hospital grade outlet or master switch. Construction and installation match fixtures. Cordsets: Custom-molded plugs, SVT cord, snap-together design. Power cordsets connect to left side of fixture series; 120V wall outlet powered, 6 amps max. Interconnect cordsets electrically connect fixtures. Available in white or black finish.

INSTALLATION: External mounting feet allow installation without accessing internal compartments. Four-point mounting required for individual fixtures and initial fixture in series-mount run. Two-point mounting required for subsequent series-mount fixtures. UL fitting for 3/8" flexible conduit or NM wire supplied. Direct wire in rear of fixture uses push-in connectors behind quick-access cover. Direct wire into sides of fixture uses included adapter plate. Maximum current of series-runs 6 amps per circuit (see table on page 3).

WARRANTY: Lifetime Guarantee against defects in workmanship and materials (LEDs and drivers excluded) for the product life of the original installation. Five (5) year warranty on LED lamps and driver for defects resulting in a fixture lumen depreciation of 30% or greater.

LISTINGS: UL and CUL listed for Damp Location. Cord-equipped models listed as Portable Luminaires. NSF2 Splash/Non-Food Zone for MAUC series only. Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory.

**ORDERING INFORMATION (Ex: MAUCLED-I-MW-20L30K-48-120)**

Model	Installation Type	Finish	Lamp Type	Length	Voltage	Options	Accessories
Model		Finish			Voltage		Accessories (Series Mount only)**
AUCLED Architectural Applications		MW† Matte White			120 120 Volts		WML 6" Wiring Module w/o Accessory
MAUCLED† Healthcare Applications		MB† Matte Black			277 277 Volts		WML/HGO* 8" Wiring Module w/ Hospital Grade Outlet
		SL† Silver				Options	WML/SW 6" Wiring Module w/Rocker Switch
		CCW Custom Color with White end caps				CS* 8' Hard-wired Cordset (Individual Mount only)	PCL2*† 2' Straight Power Cordset
		CCB Custom Color with Black end caps				2C† Series Mount Two-Circuit Wiring	PCL3*† 3' Straight Power Cordset
Installation Type						FS Single Fuse & Holder	PCL4*† 4' Straight Power Cordset
I Individual Mount						MS* PIR Occupancy Sensor	PCL6*† 6' Straight Power Cordset
S Series Mount						SW* Rocker Switch	PCL10*† 10' Straight Power Cordset
			Lamp Type				ICL05† 6" Straight Interconnect Cordset
			11L30K 11 Watt 3000K LED				ICL1† 1' Straight Interconnect Cordset
			11L35K 11 Watt 3500K LED				ICL2† 2' Straight Interconnect Cordset
			11L40K 11 Watt 4000K LED				ICL3† 3' Straight Interconnect Cordset
			16L30K 16 Watt 3000K LED				
			16L35K 16 Watt 3500K LED				
			16L40K 16 Watt 4000K LED				
			20L30K 20 Watt 3000K LED				
			20L35K 20 Watt 3500K LED				
			20L40K 20 Watt 4000K LED				
			Length				
			18 18" – 11 Watt only				
			24 24" – 11 Watt only				
			36 36" – 16 Watt only				
			48 48" – 20 Watt only				

* 120 Volts only

** When ordering Accessories, add color suffix:
–VHT white, –BLK black, –SLV silver, –CCW/–CCB custom color (–SLV and –CCW/–CCB for Wiring Modules only)

† Dimming function not available when specified with series mount installation type

▲ Not available in 18" length when ordered with series mount installation type



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F: 262-891-9701

10200 55th Street Kenosha, Wisconsin 53144

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AUC_MAUC-LED-090116

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

AUCLED-I-MW-20L30K-48"-120V-MS-
SW

Notes:

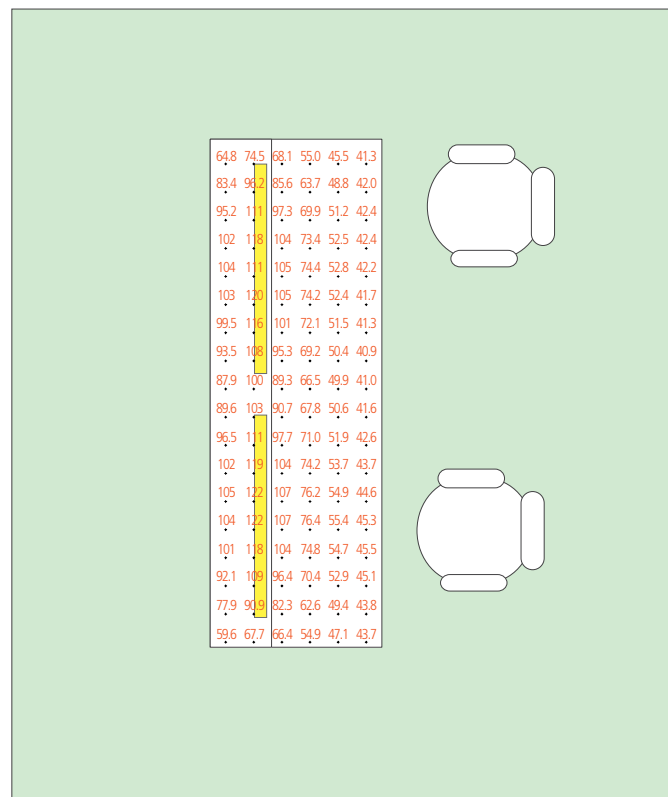
Type:**UA4**

LAI16-104794

For additional photometry, go to www.kenall.com**STRATALUME CONNECTS™****AUC/MAUC SERIES – LED****PERFORMANCE**

Lamp Type	Initial Delivered Lumens		Input Power (W)	Drive Current (mA)	Estd. L70 LED Life (hrs)
	@ 25°C (lm)	Efficacy (lm/W)			
11L30K	700	54	13	117	92,000
11L35K	700	54	13	117	92,000
11L40K	803	62	13	117	92,000
16L30K	993	55	18	117	92,000
16L35K	993	55	18	117	92,000
16L40K	1140	63	18	117	92,000
20L30K	1287	56	23	117	92,000
20L35K	1287	56	23	117	92,000
20L40K	1473	64	23	117	92,000

Displayed information above is for selected luminaires only. Additional wattages and color temperatures are also available. Visit www.kenall.com for additional information.

TYPICAL LIGHTING LAYOUT (TASK LIGHTING ONLY)

Illuminance	(Fc)
Average	52.96
Maximum	102
Minimum	9.6
Ave/Min Ratio	5.52
Max/Min Ratio	10.63

Product shown: (2) 48" AUCLED with 20L35K lamp.

Calculations are based on 9' ceiling height, 30" task plane, shelf height 20" above task plane, 90/60/20 room reflectance, and 0.80 LLF.


www.kenall.com

P: 800-4-Kenall

F: 262-891-9701

10200 55th Street Kenosha, Wisconsin 53144

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AUC_MAUC-LED-090116

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

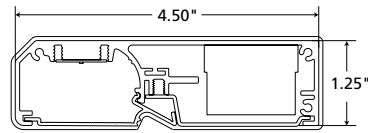
Catalog Number:

AUCLED-I-MW-20L30K-48"-120V-MS-
SW

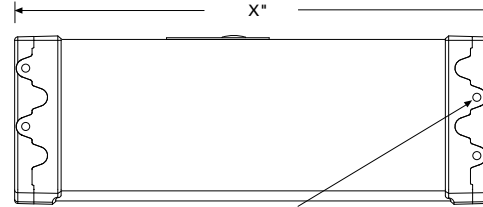
Notes:

Type:**UA4**

LAI16-104794

For additional photometry, go to www.kenall.com**STRATALUME CONNECTS™****AUC/MAUC SERIES – LED****DIMENSIONAL DATA**

Solid Front



(4) 0.188" Mounting Holes

LENGTH DIMENSION

MODEL	LENGTH	X (in)	Max Current	
			120V	277V
11L	18"	18.00	0.11	0.05
11L	24"	24.00	0.11	0.05
16L	36"	36.00	0.15	0.07
20L	48"	48.00	0.19	0.09
WML	—	6.00		
WML/HGO	—	8.00		
WML/SW	—	6.00		

NOTE: Subtract 0.54" for each end cover removed to get overall length in series mount applications. When ordering the power or interconnect cordset, allow at least 2" clearance on the side of the fixture. To calculate maximum allowable fixtures in a series run, divide 6 amps maximum current by the maximum current of each fixture.

www.kenall.com

P: 800-4-Kenall

F: 262-891-9701

10200 55th Street Kenosha, Wisconsin 53144

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AUC_MAUC-LED-090116

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

UC-E-45"-FINISH-PS-21W

Notes: MAGNETIC MOUNTING INCLUDED

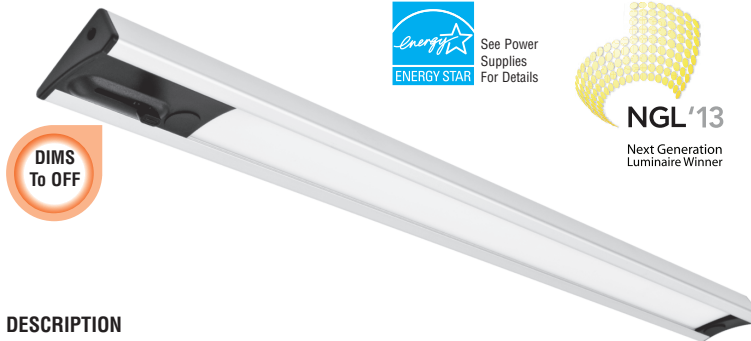
Type:**UB4**

LAI16-104794

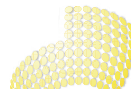
FINELITE



BUY AMERICAN ACT OF 2009 COMPLIANT

Edge *by Finelite™*

See Power
Supplies
For Details

**NGL '13**

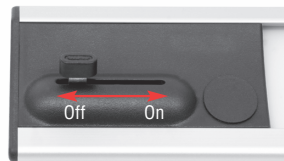
Next Generation
Luminaire Winner

Date Project Type Comments **DESCRIPTION**

Edge *by Finelite™* delivers the right amount of task illumination for a fraction of the energy required by conventional undercabinet luminaires. Available in three different sizes, Edge *by Finelite™* can be used as a stand alone unit, daisy chained or in conjunction with Finelite LED desk lamps. Use it to create pleasant and sustainable work areas that allow for true occupant control.

**LIGHT ENGINE**

Edge uses mid-powered LEDs spaced uniformly for even distribution on the task plane.

**FULL RANGE, ON-BOARD DIMMING TO OFF**

Edge comes equipped with individual dimming to off on each luminaire.

21W & 60W**8W****EVEN GLOW DIFFUSER**

Edge's Even Glow diffuser covers the LEDs for improved distribution, minimizes multiple shadow effects, and is easy to clean for applications requiring periodic wipe down.

POWER SUPPLIES:

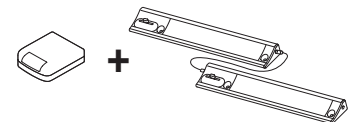
The power supply draws no power during off-state. Available with 8W, 21W or 60W power supplies to meet a variety of application needs.



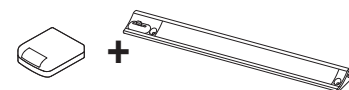
**ENERGY STAR® QUALIFIED
WITH FOLLOWING
CONFIGURATIONS**

ES1

Two 12" units on an 8W power supply only

**OR****ES2**

One 22" unit on an 8W power supply only

**ORDERING GUIDE**

Sample Number: UC-E - 22" - S - PS-8W - OCC - ES2

Lamp (UC-E)

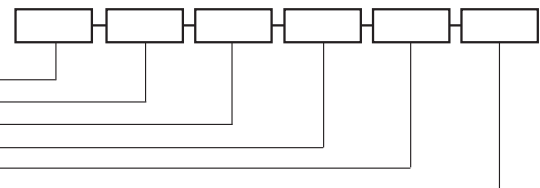
Length (12", 22" 45")

Finish (Silver)

Power Supply (PS-8W PS-21W PS-60W)

Occupancy Sensor (OCC)**

ENERGY STAR* (ES1, ES2)



* 45" can use 21W or 60W power supply.

* Edge is ENERGY STAR® qualified when using two 12" units (ES1) or one 22" (ES2) unit on an 8W power supply.

** OCC sensor available for PS-21W & PS-60W only.

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

UC-E-45"-FINISH-PS-21W

Notes: MAGNETIC MOUNTING INCLUDED

Type:**UB4**

LAI16-104794

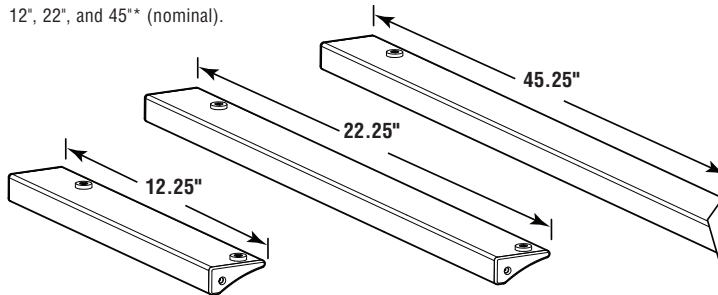
FINELITE



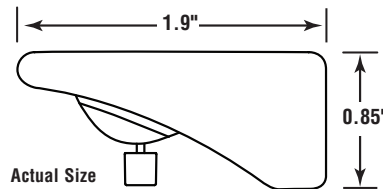
BUY AMERICAN ACT OF 2009 COMPLIANT

Edge by *Finelite*™**LENGTHS:**

12", 22", and 45" (nominal).

**OCCUPANCY SENSOR**

Optional occupancy sensor available for use with 21W or 60W power supply.



Actual Size



5 year warranty on all Edge by *Finelite* components.

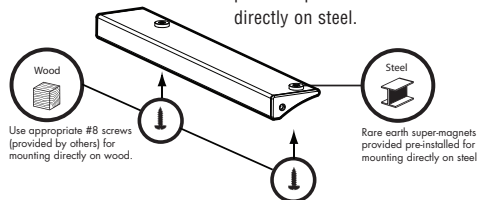
TECHNICAL SPECIFICATIONS

- Buy American Act of 2009 Compliant
- Efficacy (Lumens per Watt): 45": 62.2* / 22": 62.2 / 12": 48.9
- Light Output (Lumens): 45": 760* / 22": 380 / 12": 196
- Power Consumption: 45": 12.2W* / 22": 6.1W / 12": 4W
- Color Temperature: 3500K
- Color Rendering (CRI): 87
- R9 Value: 22": 32 / 12": 34
- L₉₀: Rated for 100,000 hours to 90% of initial lumens**
- LM-79 tested and LM-80 data is available
- Complies with FCC requirements for commercial and residential use
- Compatible with Personal Lighting System (PLS)
- End of life statement: 86% recyclable at the end of its useful life
- ETL Listed
- RoHS Compliant

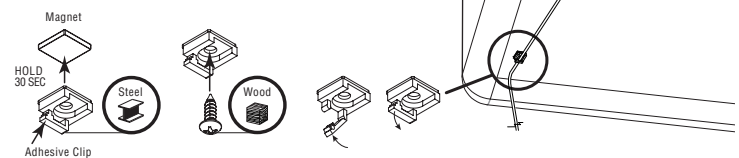
* 45" performance is projected.

** L₉₀ lifetime is estimated by the LED manufacturer based on independent testing of the Edge luminaire.**RARE EARTH MAGNETS**

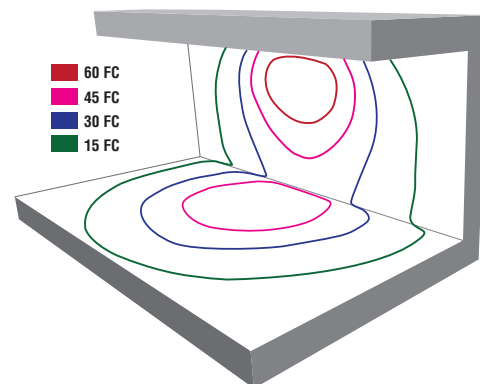
Powerful rare earth super magnets provided pre-installed for mounting directly on steel.

**CABLE MANAGEMENT HARDWARE**

For best results, clean magnet or cabinet surface with isopropyl alcohol before applying adhesive clip.

**PHOTOMETRIC PERFORMANCE**

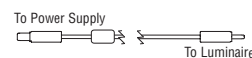
Superior lateral throw provides proper illumination over a wide area. Example below: 22" unit installed on a 4' binder bin.



One 22" Edge provides ample illumination beneath a 4' binder area. For additional output specify a 45" luminaire rather than two 22" luminaires.

CABLES

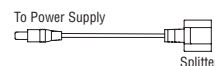
Edge by *Finelite* comes standard with (1) 12' power cable and cable management hardware.

• Power Cables

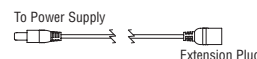
Cat No. CPNC-12 [12' Power Cable]

• Patch Cables

Daisy chains two male 1.3mm jacks.
Cat No. CP-3 [3' Patch Cable]
Cat No. CP-6 [6' Patch Cable]
Cat No. CP-14 [14' Patch Cable]
Cat No. CP-28 [28' Patch Cable]

• Splitter Cable

Cat No. CY-6 [6" Splitter Cable]

• Extension Cable

Cat No. CX-8 [8' Extension Cable]

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

PS-60W WITH TWIST LOCK L5-15P
PLUG

Notes:

Type:**UB4**

LAI16-104794

FINELITE**Power Supplies and Occupancy Sensor****8W**Date Project Type **21W and 60W**Comments **Occ Sensor**

Power Supplies	8W*	21W**	60W**
Input Voltage:	100-240v VAC 50-60hz	100-240v VAC 50-60hz	100-240v VAC 50-60hz
Output Voltage:	24 VDC (6.5W max.)	24 VDC (23W max.)	24 VDC (65W max.)
Output Jack:	1 x 2.5 mm	4 x 2.5 mm	4 x 2.5 mm
Dimensions:	3.5" x 4.3" x 1.4"	5.5" x 5.2" x 1.4"	5.5" x 5.2" x 1.4"
Finish:	Matte Black	Matte Black	Matte Black
Listed:	ETL	UL/ C-UL	UL/ C-UL
Power Cord:	5' AC supplied	5' AC supplied	5' AC supplied

*Consumes no power in off-state. ** Optional occupancy sensor available.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

PS-60W WITH TWIST LOCK L5-15P
PLUG

Notes:

Type:

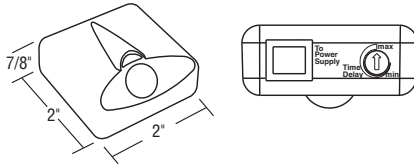
UB4

LAI16-104794

FINELITE

Power Supplies and Occupancy Sensor

Occupancy Sensor



Cat No.: Occ

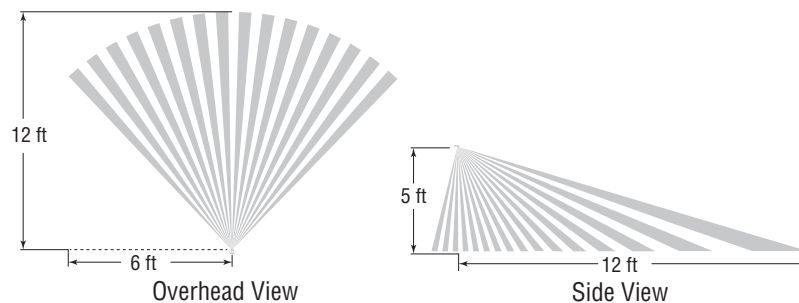
Uses passive infrared (PIR) technology to detect occupancy. User adjustable time delay of 30 seconds to 30 minutes. Fresnel lens with up to 120° and 300 square feet of coverage. ASIC technology reduces components and enhances reliability. UL / C-UL Listed.

Sensor Placement

The occupancy sensor uses a multi-segmented Fresnel lens to view a coverage area. Position the sensor to have a clear view of motion (especially hand motion) in the workspace. Make sure that it does not view open doors or entrances where people passing by may be detected.

Below, the diagrams depict the occupancy sensor's coverage patterns. These diagrams illustrate the areas in which the sensor will best sense motion. Use the diagrams as a general reference to help determine the positioning and orientation of the occupancy sensor.

Coverage Patterns



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

CP-28

Notes: NEED TO VERIFY LENGTH

Type:**UB4**

LAI16-104794

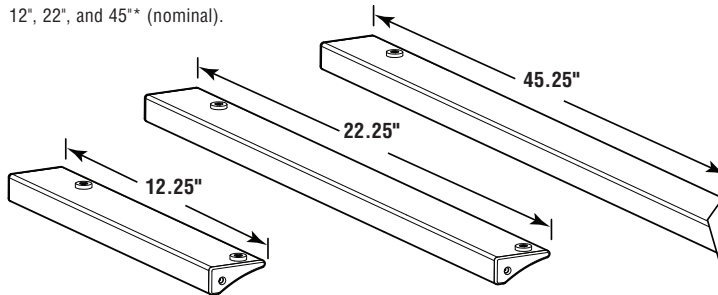
FINELITE



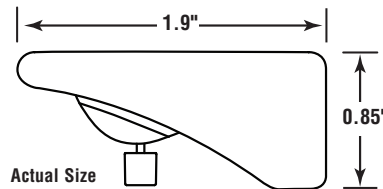
BUY AMERICAN ACT OF 2009 COMPLIANT

Edge by *Finelite*™**LENGTHS:**

12", 22", and 45" (nominal).

**OCCUPANCY SENSOR**

Optional occupancy sensor available for use with 21W or 60W power supply.



Actual Size



5 year warranty on all Edge by Finelite components.

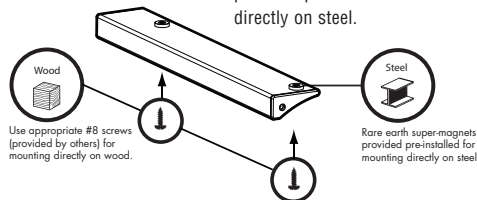
TECHNICAL SPECIFICATIONS

- Buy American Act of 2009 Compliant
- Efficacy (Lumens per Watt): 45": 62.2* / 22": 62.2 / 12": 48.9
- Light Output (Lumens): 45": 760* / 22": 380 / 12": 196
- Power Consumption: 45": 12.2W* / 22": 6.1W / 12": 4W
- Color Temperature: 3500K
- Color Rendering (CRI): 87
- R9 Value: 22": 32 / 12": 34
- L₉₀: Rated for 100,000 hours to 90% of initial lumens**
- LM-79 tested and LM-80 data is available
- Complies with FCC requirements for commercial and residential use
- Compatible with Personal Lighting System (PLS)
- End of life statement: 86% recyclable at the end of its useful life
- ETL Listed
- RoHS Compliant

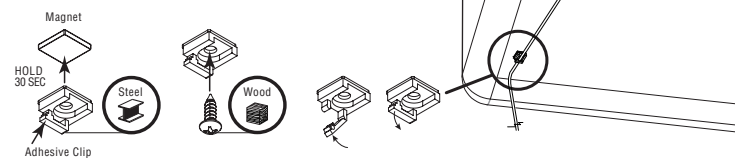
* 45" performance is projected.

** L₉₀ lifetime is estimated by the LED manufacturer based on independent testing of the Edge luminaire.**RARE EARTH MAGNETS**

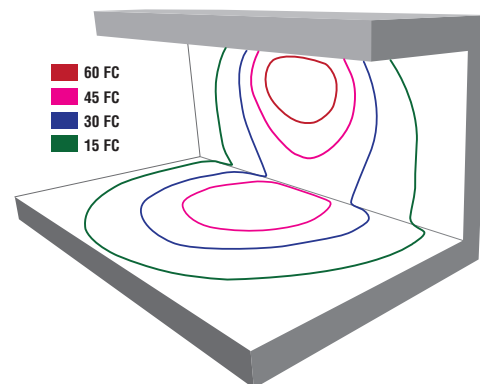
Powerful rare earth super magnets provided pre-installed for mounting directly on steel.

**CABLE MANAGEMENT HARDWARE**

For best results, clean magnet or cabinet surface with isopropyl alcohol before applying adhesive clip.

**PHOTOMETRIC PERFORMANCE**

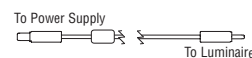
Superior lateral throw provides proper illumination over a wide area. Example below: 22" unit installed on a 4' binder bin.



One 22" Edge provides ample illumination beneath a 4' binder area. For additional output specify a 45" luminaire rather than two 22" luminaires.

CABLES

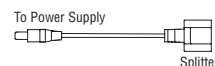
Edge by Finelite comes standard with (1) 12' power cable and cable management hardware.

• Power Cables

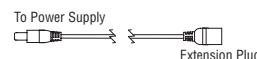
Cat No. CPNC-12 [12' Power Cable]

• Patch Cables

Daisy chains two male 1.3mm jacks.
Cat No. CP-3 [3' Patch Cable]
Cat No. CP-6 [6' Patch Cable]
Cat No. CP-14 [14' Patch Cable]

Cat No. CP-28 [28' Patch Cable]**• Splitter Cable**

Cat No. CY-6 [6" Splitter Cable]

• Extension Cable

Cat No. CX-8 [8' Extension Cable]

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4R-4'-S-3000K-277V-SC-SF

Notes:**Type:****WA**

LAI16-104794

IC - RATED

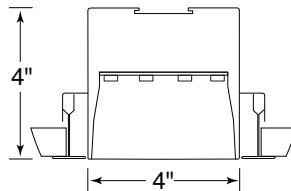
LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE**High Performance 4" Aperture (HP-4) - Recessed**Date Project Type Comments **DESCRIPTION**

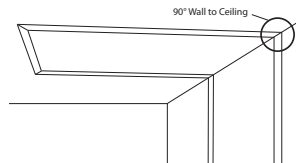
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



**Flush Diffuser
(Standard)**

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

**Tailored Lighting
10 working days****TAILORED LIGHTING**

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

4'**Finelite Series HP-4 R**

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output (**S - Standard**, **B - Boosted Standard**, **H - High**, **V - Very High**)

LED CRI (**8 - 80 CRI min (standard)**, **9 - 90 CRI min**)

LED Color Temperature (**30 - 3000K**, **35 - 3500K**, **40 - 4000K**)

Downlight Diffuser Option (**F - Flush (standard)**)

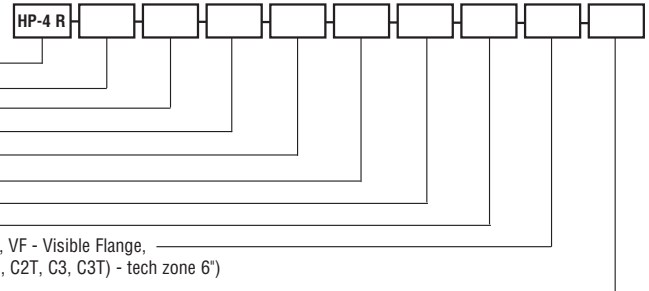
Voltage (120V **277V**)

Circuiting (**SC - Single Circuit**)

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C3F - flush screw slot, VF - Visible Flange,

C2T - 9/16" tegular, C1T - 1" tegular, **SF - Spackle Flange**, TZ6 (C1, C2, C2T, C3, C3T) - tech zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4R-4'-S-3000K-277V-SC-SF

Notes:

Type:**WA**

LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

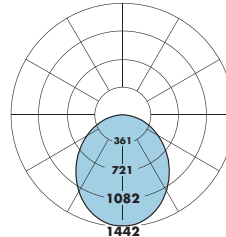
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens
for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

$$\text{Total Light Output} = 2898 \text{ lm} \times 0.789 = 2287 \text{ lm}$$

$$\text{Total Light Output per Foot} = 725 \text{ lm/ft} \times 0.789 = 572 \text{ lm/ft}$$

$$\text{watts/foot} = 7.1 \text{ W/ft}$$

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4R-4'-S-3000K-277V-SC-SF

Notes:**Type:****WA**

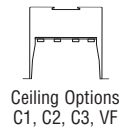
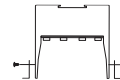
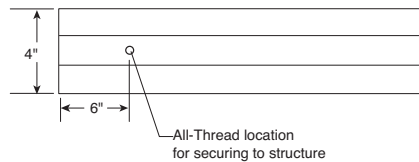
LAI16-104794



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

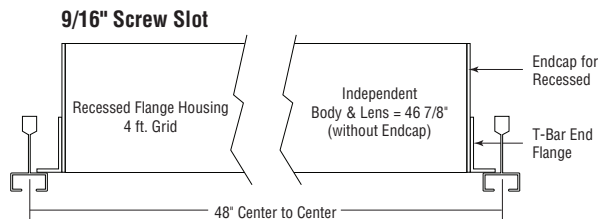
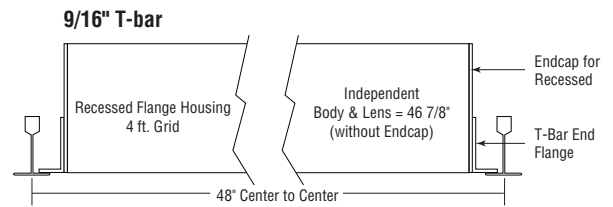
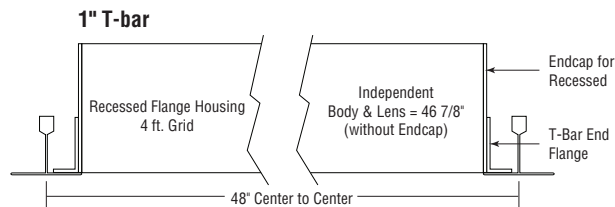
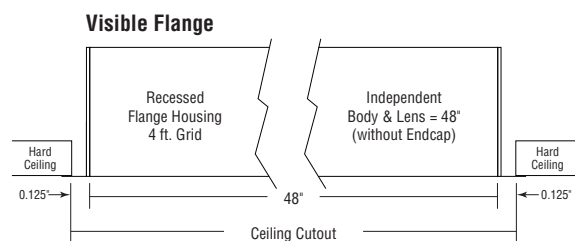
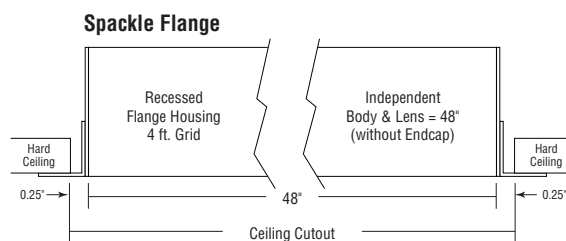
High Performance 4" Aperture (HP-4) - Recessed

HOUSING**Housing With
Extruded Flange (V1)****Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached****Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached****SHEET ROCK INSTALLATION:**

Flex conduit is secured to top of luminaire. Support to structure using All-Thread.
All-Thread support holes are located on each end of the luminaire.

T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example**HARD CEILING LENGTH DETAIL - 4 ft. example**

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4R-4'-S-3000K-277V-SC-SF

Notes:**Type:****WA**

LAI16-104794

IC - RATED

LED



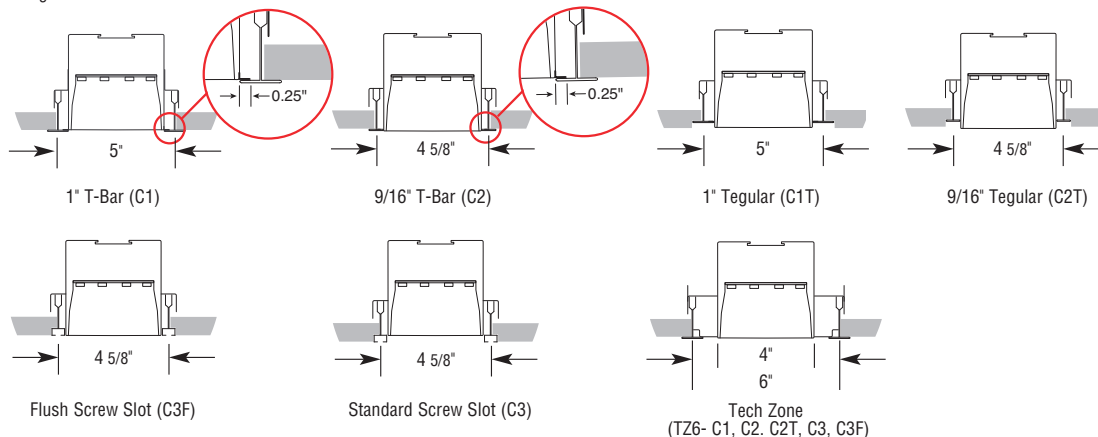
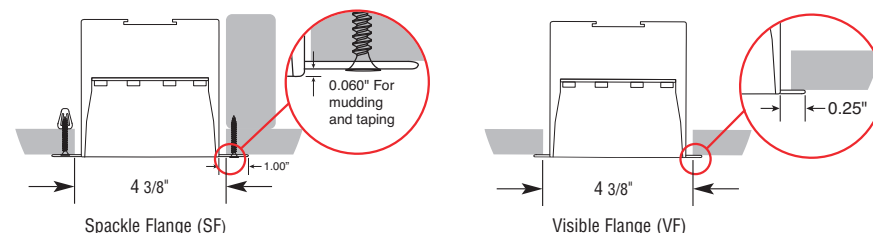
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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

MOUNTING TYPES: T-BAR

Rough-In Dimensions

**MOUNTING TYPES: CUTOUT DIMENSIONS****SPECIFICATIONS**

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

LABELS: Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

WEIGHT: 2.8 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LPX6

Notes: Providing equal not specified

Type:**XA**

LAI16-104794

COOPER LIGHTING - SURE-LITES®**DESCRIPTION**

LPX Series LED Exit is a polycarbonate unit suitable for general purpose applications. With the new advanced standard features and industry leading innovations, they are now the most universal, energy friendly, easiest to stock and install, and safest Exits in their class.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES**Electrical****- General Features**

- Field selected red and green sign capability standard on all units (units shipped red, field convert to green with supplied parts).
- Dual Voltage Input 120/277 VAC, 60Hz

- AC Only

- Optional 2C (Two circuit, FTBR) available in 120/277 VAC in standard and emergency operation

- Self Powered

- Sure-Lites EZ Key patented external battery disconnect feature – prevents unnecessary battery drainage, saves on installation time
- Solid-state Voltage Limited Charger
- Brownout Circuit
- Low-Voltage Disconnect
- Test Switch/Power Indicator Light
- Standard 24 hour recharge time (max)
- Eagle Eye™ Self-Diagnostic feature available as option

Housing Construction

- All components are injection molded, color stable, high impact UL 94-5VA rated polycarbonate material
- White or black textured finish standard
- Components are of snap-fit construction to facilitate under 5-minute installation
- Reinforcing ribs throughout to provide maximum strength
- Molded-in wireways facilitate internal wire routing and connections
- All components including battery and electronics are located inside the exit housing
- Snap-out or snap-in chevron directional indicators have full 3/4" stroke
- Knockout provided on housing for surface attachment
- Universal exits can be field configured as single face or double face
- Snap-fit canopy with captive mounting screws included with all exits
- Exit can be ceiling, wall, or end mounted
- Universal J-box mounting pattern

Lamp Data

- AC LED: Red and green LED lamps provide uniform diffused illumination
- DC: Red and green LED DC lamps (Brighter in emergency mode)

Code Compliance

- UL 924 Listed
- UL Damp Location (0-40° C)
- Life Safety NFPA 101
- NEC/OSHA
- Most State and Local Codes
- Suitable for Floor Proximity Installation
- UL Listed for 2C (FTBR)
- Patent Numbers 5,735,498 and 5,678,336

Warranty

- Exit: 1-Year
- Battery: 15-year pro-rata

**LPX SERIES**

POLYCARBONATE EXIT
SURFACE MOUNT
LED LAMPS
EXIT LIGHTING

ENERGY DATA

Maximum power consumption under all charge conditions:

AC Only, 120V - Red

Amps: 0.07
Watts: 0.98
Power Factor: 0.12

AC Only, 120V - Green

Amps: 0.07
Watts: 1.02
Power Factor: 0.13

AC Only, 277V - Red

Amps: 0.07
Watts: 1.04
Power Factor: 0.06

AC Only, 277V - Green

Amps: 0.07
Watts: 1.12
Power Factor: 0.06

Self Powered, 120V - Red

Amps: 0.07
Watts: 0.98
Power Factor: 0.12

Self Powered, 120V - Green

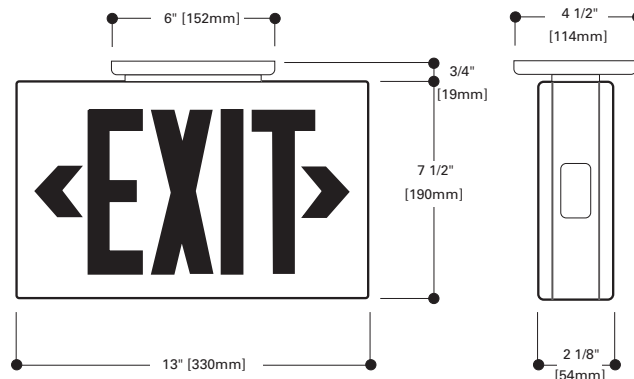
Amps: 0.07
Watts: 1.00
Power Factor: 0.13

Self Powered, 277V - Red

Amps: 0.07
Watts: 1.03
Power Factor: 0.06

Self Powered, 277V - Green

Amps: 0.07
Watts: 1.09
Power Factor: 0.05



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LPX6

Notes: Providing equal not specified

Type:**XA**

LAI16-104794

LPX SERIES

ORDERING INFORMATION

Sample Number: LPX7, LPX7SD90, LPX6SG8, LPX7SD23050

Available Accessories (Order Separately)

Family LPX=Polycarbonate Exit, LED	Options Blank = No additional options 2C=Two Circuit Option (LPX6 only) SD=Self Diagnostics Option (LPX7 only) 22050=220V 50 Hz 23050=230V 50 Hz 24050=240V 50 Hz 34760=347V 60 Hz	Protection Devices WG10=Wall mount wire guard WGS11=Ceiling or End VS1=Polycarbonate Vandal Shield VS1WP=Polycarbonate Vandal Shield, Weather Proof
Series 1 6=AC Only 7=Self Powered	SD Options Blank=No additional options 20=Flasher 90=Fire Alarm Interface	Pendant Kit LPX18PKWH=18" Pendant Kit, White LPX18PKHTWH=18" Hang True Pendant Kit, White LPX18PKBK=18" Pendant Kit, Black LPX18PKHTBK=18" Hang True Pendant Kit, Black
Face Options Blank=Single and Double		
Housing Finish Blank=White BK=Black		

¹ Also available in stock LPX6 and LPX7 units with the initial setup as Green with the capability to convert to Red in the field. To order these units, please use the catalog number LPX6-G or LPX7-G.

TECHNICAL DATA**Lamps**

LPX Series Exits use energy efficient, long life LED's to provide uniform diffuse illumination of the exit face. These red and green LEDs require no maintenance and consume less than one watt, on average.

Housing Construction

Rugged, durable, injection molded polycarbonate materials are used throughout the LPX Series Exits. All structural components are designed with reinforcing ribs to add additional rigidity and to maximize structural integrity. These materials are impact and scratch resistant, and they have been UV stabilized to resist discoloration due to age and ultraviolet radiation. All components are designed to be of snap-fit construction - no mechanical fasteners - to facilitate installation in under 5-minutes. Any components required for installation (wirenuts, wire leads, universal metal J-box bracket, etc.) are all included with each exit. The universal design of the LPX Series Exits enables universal exits to be configured as single face or double face in the field. All LPX Series Exits can be wall, ceiling, or end mounted; a rugged, snap-fit, low profile canopy with captive screws is included with every exit for ceiling and end mounting applications.

Lens

Lenses for the LPX Series Exits are made from durable, impact resistant polycarbonate. All exit faces are designed with full 3/4" stroke snap-out or snap-in chevron directional indicators to insure maximum visibility and compliance with the latest codes. Units come with red lenses installed and green lenses included for field selectable red or green signs.

Sure-Lites EZ Key External Battery Disconnect (Self Powered Only)

Patented technology that allows installers to externally control the battery connection. Better than line latching, allows installers to choose when the battery is connected so that it stays fresh longer. Allows battery to be disconnected after installation but before building is occupied, enabling emergency circuit to be shut down for power savings.

Brownout Circuit (Self Powered Only)

The brownout circuit on Sure-Lites' exits monitors the flow of AC current to the exit and activates the emergency lighting system when a predetermined reduction of AC power occurs. This dip in voltage will cause most ballasted fixtures to extinguish causing loss of normal lighting even though a total power failure has not occurred.

Solid-State Transfer (Self Powered Only)

The LPX Series Exit incorporates solid-state switching which eliminates corroded and pitted contacts or mechanical failures associated with relays. The switching circuit is designed to detect a loss of AC voltage and automatically energizes the lamps using DC power. Upon restoration of AC power, the DC power will be disconnected and the charger will automatically recharge the battery.

Low Voltage Disconnect (Self Powered Only)

When the battery's terminal voltage falls, the low-voltage circuitry disconnects the lighting load. The disconnect remains in effect until normal utility power is restored, preventing deep battery discharge.

Test Switch/Power Indicator Light (Self Powered Only)

A test switch located on the side of the exit permits the activation of the emergency circuit for a complete operational systems check. The Power Indicator Light provides visual assurance that the AC power is on.

Sealed Nickel Cadmium Battery (Self Powered Only)

Sure-Lites sealed nickel cadmium batteries are maintenance-free with a life expectancy of 15 years. The sealed rechargeable nickel cadmium battery offers high discharge rates and stable performance over a wide range of temperatures, from 0-40° C. The specially designed re-sealable vent automatically controls cell pressure, assuring safety and reliability. This battery is best suited for harsh ambient temperatures because the electrolyte is not active in the electrochemical process.

"2C" (AC Only)

The "2C" Option enables the Exits to operate per the requirements of UL 924 when connected simultaneously to both normal and emergency power circuits (two circuit operation-UL Category FTBR-Emergency Lighting and Power Equipment). The "2C" Option is a factory assembly change which alters the standard Exit such that it complies with and is UL Listed under the FTBR Category. This option should only be used for exits which are intended to be connected simultaneously to normal and emergency power circuits. Both circuits have universal 120/277 VAC standard.

Eagle Eye™ Self Diagnostics Option (Self Powered Only)

The self-diagnostic unit will automatically perform all tests required by UL924, and NFPA 101. The system indicates the status of the exit at all times using the LED indicator near the test switch on the side of the unit. A 90 minute battery power (emergency mode) simulation test will occur randomly once every 12 months. A 30 second battery power simulation test will occur every 30 days.

Warranty

All Sure-Lites' products are backed by a firm one-year warranty against defects in material and workmanship. Maintenance-free, long-life, sealed nickel cadmium batteries carry a fifteen-year pro-rata warranty.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LPX18PKWH

Notes:

Type:**XA**

LAI16-104794

COOPER LIGHTING - SURE-LITES®**DESCRIPTION**

LPX Series LED Exit is a polycarbonate unit suitable for general purpose applications. With the new advanced standard features and industry leading innovations, they are now the most universal, energy friendly, easiest to stock and install, and safest Exits in their class.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES**Electrical****- General Features**

- Field selected red and green sign capability standard on all units (units shipped red, field convert to green with supplied parts).
- Dual Voltage Input 120/277 VAC, 60Hz

- AC Only

- Optional 2C (Two circuit, FTBR) available in 120/277 VAC in standard and emergency operation

- Self Powered

- Sure-Lites EZ Key patented external battery disconnect feature – prevents unnecessary battery drainage, saves on installation time
- Solid-state Voltage Limited Charger
- Brownout Circuit
- Low-Voltage Disconnect
- Test Switch/Power Indicator Light
- Standard 24 hour recharge time (max)
- Eagle Eye™ Self-Diagnostic feature available as option

Housing Construction

- All components are injection molded, color stable, high impact UL 94-5VA rated polycarbonate material
- White or black textured finish standard
- Components are of snap-fit construction to facilitate under 5-minute installation
- Reinforcing ribs throughout to provide maximum strength
- Molded-in wireways facilitate internal wire routing and connections
- All components including battery and electronics are located inside the exit housing
- Snap-out or snap-in chevron directional indicators have full 3/4" stroke
- Knockout provided on housing for surface attachment
- Universal exits can be field configured as single face or double face
- Snap-fit canopy with captive mounting screws included with all exits
- Exit can be ceiling, wall, or end mounted
- Universal J-box mounting pattern

Lamp Data

- AC LED: Red and green LED lamps provide uniform diffused illumination
- DC: Red and green LED DC lamps (Brighter in emergency mode)

Code Compliance

- UL 924 Listed
- UL Damp Location (0-40° C)
- Life Safety NFPA 101
- NEC/OSHA
- Most State and Local Codes
- Suitable for Floor Proximity Installation
- UL Listed for 2C (FTBR)
- Patent Numbers 5,735,498 and 5,678,336

Warranty

- Exit: 1-Year
- Battery: 15-year pro-rata

**LPX SERIES**

POLYCARBONATE EXIT
SURFACE MOUNT
LED LAMPS
EXIT LIGHTING

ENERGY DATA

Maximum power consumption under all charge conditions:

AC Only, 120V - Red

Amps: 0.07
Watts: 0.98
Power Factor: 0.12

AC Only, 120V - Green

Amps: 0.07
Watts: 1.02
Power Factor: 0.13

AC Only, 277V - Red

Amps: 0.07
Watts: 1.04
Power Factor: 0.06

AC Only, 277V - Green

Amps: 0.07
Watts: 1.12
Power Factor: 0.06

Self Powered, 120V - Red

Amps: 0.07
Watts: 0.98
Power Factor: 0.12

Self Powered, 120V - Green

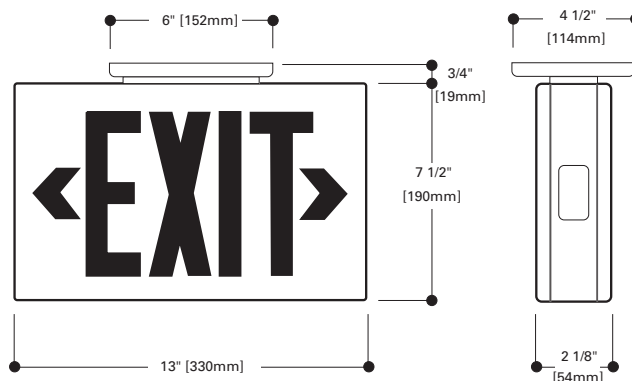
Amps: 0.07
Watts: 1.00
Power Factor: 0.13

Self Powered, 277V - Red

Amps: 0.07
Watts: 1.03
Power Factor: 0.06

Self Powered, 277V - Green

Amps: 0.07
Watts: 1.09
Power Factor: 0.05



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

LPX18PKWH

Notes:

Type:

XA

LAI16-104794

LPX SERIES

ORDERING INFORMATION

Sample Number: LPX7, LPX7SD90, LPX6SG8, LPX7SD23050

Available Accessories (Order Separately)

Family LPX=Polycarbonate Exit, LED	Options Blank = No additional options 2C =Two Circuit Option (<i>LPX6 only</i>) SD =Self Diagnostics Option (<i>LPX7 only</i>) 22050 =220V 50 Hz 23050 =230V 50 Hz 24050 =240V 50 Hz 34760 =347V 60 Hz	Protection Devices WG10 =Wall mount wire guard WGS11 =Ceiling or End VS1 =Polycarbonate Vandal Shield VS1WP =Polycarbonate Vandal Shield, Weather Proof Pendant Kit LPX18PKWH=18" Pendant Kit, White LPX18PKHTWH =18" Hang True Pendant Kit, White LPX18PKBK =18" Pendant Kit, Black LPX18PKHTBK =18" Hang True Pendant Kit, Black
Series 1 6 =AC Only 7 =Self Powered	SD Options Blank =No additional options 20 =Flasher 90 =Fire Alarm Interface	
Face Options Blank =Single and Double		
Housing Finish Blank =White BK =Black		

¹ Also available in stock LPX6 and LPX7 units with the initial setup as Green with the capability to convert to Red in the field. To order these units, please use the catalog number LPX6-G or LPX7-G.

TECHNICAL DATA**Lamps**

LPX Series Exits use energy efficient, long life LED's to provide uniform diffuse illumination of the exit face. These red and green LEDs require no maintenance and consume less than one watt, on average.

Housing Construction

Rugged, durable, injection molded polycarbonate materials are used throughout the LPX Series Exits. All structural components are designed with reinforcing ribs to add additional rigidity and to maximize structural integrity. These materials are impact and scratch resistant, and they have been UV stabilized to resist discoloration due to age and ultraviolet radiation. All components are designed to be of snap-fit construction - no mechanical fasteners - to facilitate installation in under 5-minutes. Any components required for installation (wirenuts, wire leads, universal metal J-box bracket, etc.) are all included with each exit. The universal design of the LPX Series Exits enables universal exits to be configured as single face or double face in the field. All LPX Series Exits can be wall, ceiling, or end mounted; a rugged, snap-fit, low profile canopy with captive screws is included with every exit for ceiling and end mounting applications.

Lens

Lenses for the LPX Series Exits are made from durable, impact resistant polycarbonate. All exit faces are designed with full 3/4" stroke snap-out or snap-in chevron directional indicators to insure maximum visibility and compliance with the latest codes. Units come with red lenses installed and green lenses included for field selectable red or green signs.

Sure-Lites EZ Key External Battery Disconnect (Self Powered Only)

Patented technology that allows installers to externally control the battery connection. Better than line latching, allows installers to choose when the battery is connected so that it stays fresh longer. Allows battery to be disconnected after installation but before building is occupied, enabling emergency circuit to be shut down for power savings.

Brownout Circuit (Self Powered Only)

The brownout circuit on Sure-Lites' exits monitors the flow of AC current to the exit and activates the emergency lighting system when a predetermined reduction of AC power occurs. This dip in voltage will cause most ballasted fixtures to extinguish causing loss of normal lighting even though a total power failure has not occurred.

Solid-State Transfer (Self Powered Only)

The LPX Series Exit incorporates solid-state switching which eliminates corroded and pitted contacts or mechanical failures associated with relays. The switching circuit is designed to detect a loss of AC voltage and automatically energizes the lamps using DC power. Upon restoration of AC power, the DC power will be disconnected and the charger will automatically recharge the battery.

Low Voltage Disconnect (Self Powered Only)

When the battery's terminal voltage falls, the low-voltage circuitry disconnects the lighting load. The disconnect remains in effect until normal utility power is restored, preventing deep battery discharge.

Test Switch/Power Indicator Light (Self Powered Only)

A test switch located on the side of the exit permits the activation of the emergency circuit for a complete operational systems check. The Power Indicator Light provides visual assurance that the AC power is on.

Sealed Nickel Cadmium Battery (Self Powered Only)

Sure-Lites sealed nickel cadmium batteries are maintenance-free with a life expectancy of 15 years. The sealed rechargeable nickel cadmium battery offers high discharge rates and stable performance over a wide range of temperatures, from 0-40° C. The specially designed re-sealable vent automatically controls cell pressure, assuring safety and reliability. This battery is best suited for harsh ambient temperatures because the electrolyte is not active in the electrochemical process.

"2C" (AC Only)

The "2C" Option enables the Exits to operate per the requirements of UL 924 when connected simultaneously to both normal and emergency power circuits (two circuit operation-UL Category FTBR-Emergency Lighting and Power Equipment). The "2C" Option is a factory assembly change which alters the standard Exit such that it complies with and is UL Listed under the FTBR Category. This option should only be used for exits which are intended to be connected simultaneously to normal and emergency power circuits. Both circuits have universal 120/277 VAC standard.

Eagle Eye™ Self Diagnostics Option (Self Powered Only)

The self-diagnostic unit will automatically perform all tests required by UL924, and NFPA 101. The system indicates the status of the exit at all times using the LED indicator near the test switch on the side of the unit. A 90 minute battery power (emergency mode) simulation test will occur randomly once every 12 months. A 30 second battery power simulation test will occur every 30 days.

Warranty

All Sure-Lites' products are backed by a firm one-year warranty against defects in material and workmanship. Maintenance-free, long-life, sealed nickel cadmium batteries carry a fifteen-year pro-rata warranty.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

EUX6R

Notes: Providing equal not specified

Type:**XB**

LAI16-104794

DESCRIPTION

The EU Series Edge-lit Exit provides an attractive yet easy to install edge-lit exit sign. The crystal clear lens panel provides excellent light distribution and exit visibility. Long-life, energy efficient LED lamps reduce energy costs and eliminate routine lamp maintenance.

SURE-LITES®

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES**Electrical**

- Dual Voltage Input 120/277 VAC, 60Hz
- Solid-state Voltage Limited Charger
- Solid-state Switching
- Brownout Circuit
- Low-Voltage Disconnect
- Overload/Short Circuit Protection
- Test Switch/Power Indicator Light

Housing Construction

- Anodized Aluminum housing
- Black powder coat painted die-cast canopy provided
- All components including battery and electronics are located inside the exit housing
- EUS Series Exit can be universally surface mounted, ceiling, wall, or end
- EUR Series Exit is recess mounted in accessible ceiling only
- Universal J-box mounting pattern

Trim Panel

- Injection molded, high impact, clear acrylic panel
- Universal, single or double face panels available
- Red or Green letter colors
- Universal, Field Installable Chevrons in Red or Green
- Mirror background included with double face exits
- Edge reflector for optimized efficiency and visibility

Battery

- Sealed Nickel Cadmium (Self-Powered exits only)
- Maintenance-Free, Long-Life
- Full Recharge Time, 24 hrs. (max.)

Code Compliance

- UL 924 Damp Location Listed
- Life Safety NFPA 101
- NEC/OSHA
- Most State and Local Codes

Lamp Data

- AC LED: Long-life LED lamps provide uniform diffused illumination
- DC: LED DC lamps

Warranty

- Exit: 1-Year
- Battery: 15 year pro-rata

**EUR SERIES (RECESSED EDGELIT)****EUS SERIES (SURFACE EDGELIT)****EUR/EUS SERIES****ORDERING INFORMATION**

Family EU = Series Edge-lit Exit	Series 60 = LED Lamps AC only 70 = LED Lamps, Self-Powered	Housing Trim Finish = Anodized Aluminium	Chevron Direction = Universal Stick-On Chevrons
Mounting R = Recessed Mount S = Surface Mount	Face Options = Universal (Single or Double Face) 1 = Single Sided Only 2 = Double Sided Only	Letters/Background Color R = Red G = Green	Voltage = Dual Voltage, 120-277V
	Battery = Sealed Lead Calcium (Self-Powered)		

EDGE-LIT UNIVERSAL EXITS

AC ONLY
SELF POWERED
SINGLE OR DOUBLE FACE
EMERGENCY
LED LAMPS
EXIT LIGHTING

ENERGY DATA

Charge Mode:
120V = 3.6W Max.
277V = 4.5W Max.

Input Current:
120V = 0.03A Max.
277V = 0.02A Max.



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

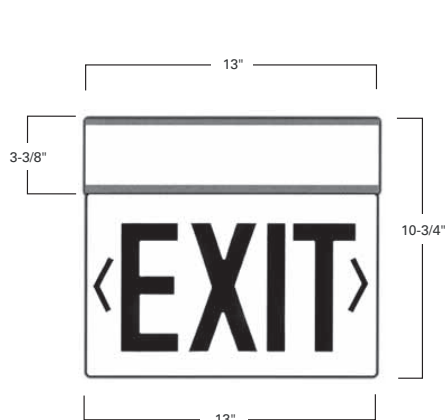
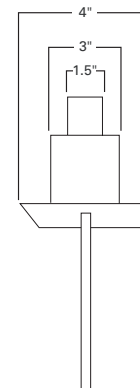
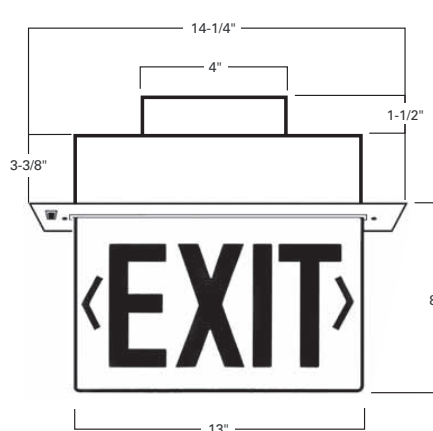
Catalog Number:

EUX6R

Notes: Providing equal not specified

Type:**XB**

LAI16-104794

EUR EUS SERIES**DIMENSIONS****Surface
EUS Series****Recessed
EUR Series****TECHNICAL DATA****Lamps**

The EU Series Edge-Lit Exits use energy efficient, long-life LED's to provide uniform diffuse illumination of the exit face. The low operating costs and zero maintenance requirement makes LED lamps the wisest choice for exit signs today. Emergency illumination is provided by LED lamps in the self-powered models.

Housing Construction

Rugged, durable anodized aluminum housing is impact resistant. Black powder coat painted mounting canopy provided. Housing is designed to allow easy swap out of exit lens when necessary. All EUS Series Exits can be wall, ceiling, or end mounted.

Trim Panel

Trim panels for the EU Series Edgelit Exits are injection molded from impact-resistant clear acrylic. The single face lens is available with a clear background. All double face lens come standard with a mirror background. Universal, fieldinstallable chevrons are provided in Red or Green allowing for universal configuration of the exit sign based on the directional needs of the application. The edge reflector further enhances visibility.

Solid-State Charger

Supplied with a 120/277 VAC, voltage regulated solid-state charger, the battery is recharged immediately upon restoration of AC current after a power failure. The charge circuit reacts to the condition of the battery in order to maintain peak battery capacity and maximize battery life. Solidstate construction recharges the battery following a power failure in accordance with UL 924.

Brownout Circuit

The brownout circuit on the exit monitors the flow of AC current to the exit and activates the emergency lighting system when a predetermined reduction of AC power occurs. This dip in voltage will cause most ballasted fixtures to extinguish causing loss of normal lighting even though a total power failure has not occurred.

Solid-State Transfer

The EU Series Edge-Lit Exit incorporates solid-state switching which eliminates corroded and pitted contacts or mechanical failures associated with relays. The switching circuit is designed to detect a loss of AC voltage and automatically energizes the lamps using DC power. Upon restoration of AC power, the DC power will be disconnected and the charger will automatically recharge the battery.

Test Switch/Power Indicator Light

A test switch located on the side of the exit permits the activation of the emergency circuit for a complete operational systems check. The Power Indicator Light provides visual assurance that the AC power is on.

Sealed Nickel Cadmium Battery (Self Powered Only)

Sure-Lites sealed nickel cadmium batteries are maintenance-free with a life expectancy of 15 years. The sealed rechargeable nickel cadmium battery offers high discharge rates and stable performance over a wide range of temperatures, from 0-40°C. The specially designed re-sealable vent automatically controls cell pressure, assuring safety and reliability. This battery is best suited for harsh ambient temperatures because the electrolyte is not active in the electrochemical process.

Warranty

All Sure-Lites' products are backed by a firm one-year warranty against defects in material and workmanship. Maintenance-free, long-life, sealed nickel cadmium batteries carry a fifteen year pro-rata warranty.



Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Cooper Lighting Business
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

Specifications and
dimensions subject to
change without notice.

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

EUX6R

Notes: Providing equal not specified

Type:

XC

LAI16-104794

DESCRIPTION

The EU Series Edge-lit Exit provides an attractive yet easy to install edge-lit exit sign. The crystal clear lens panel provides excellent light distribution and exit visibility. Long-life, energy efficient LED lamps reduce energy costs and eliminate routine lamp maintenance.

SURE-LITES®

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES**Electrical**

- Dual Voltage Input 120/277 VAC, 60Hz
- Solid-state Voltage Limited Charger
- Solid-state Switching
- Brownout Circuit
- Low-Voltage Disconnect
- Overload/Short Circuit Protection
- Test Switch/Power Indicator Light

Housing Construction

- Anodized Aluminum housing
- Black powder coat painted die-cast canopy provided
- All components including battery and electronics are located inside the exit housing
- EUS Series Exit can be universally surface mounted, ceiling, wall, or end
- EUR Series Exit is recess mounted in accessible ceiling only
- Universal J-box mounting pattern

Trim Panel

- Injection molded, high impact, clear acrylic panel
- Universal, single or double face panels available
- Red or Green letter colors
- Universal, Field Installable Chevrons in Red or Green
- Mirror background included with double face exits
- Edge reflector for optimized efficiency and visibility

Battery

- Sealed Nickel Cadmium (Self-Powered exits only)
- Maintenance-Free, Long-Life
- Full Recharge Time, 24 hrs. (max.)

Code Compliance

- UL 924 Damp Location Listed
- Life Safety NFPA 101
- NEC/OSHA
- Most State and Local Codes

Lamp Data

- AC LED: Long-life LED lamps provide uniform diffused illumination
- DC: LED DC lamps

Warranty

- Exit: 1-Year
- Battery: 15 year pro-rata



EUR SERIES (RECESSED EDGELIT)



EUS SERIES (SURFACE EDGELIT)

EUR/EUS SERIES**ORDERING INFORMATION**

Family EU = Series Edge-lit Exit	Series 60 = LED Lamps AC only 70 = LED Lamps, Self-Powered	Housing Trim Finish = Anodized Aluminium	Chevron Direction = Universal Stick-On Chevrons
Mounting R = Recessed Mount S = Surface Mount	Face Options = Universal (Single or Double Face) 1 = Single Sided Only 2 = Double Sided Only	Letters/Background Color R = Red G = Green	Voltage = Dual Voltage, 120-277V
	Battery = Sealed Lead Calcium (Self-Powered)		

EDGE-LIT UNIVERSAL EXITS

AC ONLY
SELF POWERED
SINGLE OR DOUBLE FACE
EMERGENCY
LED LAMPS
EXIT LIGHTING

ENERGY DATA

Charge Mode:
120V = 3.6W Max.
277V = 4.5W Max.

Input Current:
120V = 0.03A Max.
277V = 0.02A Max.



**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

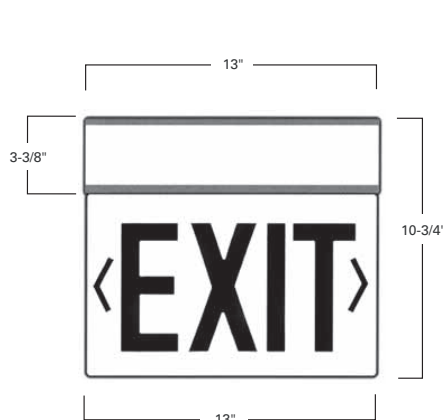
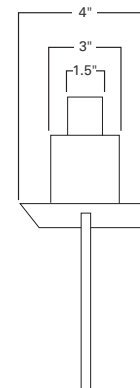
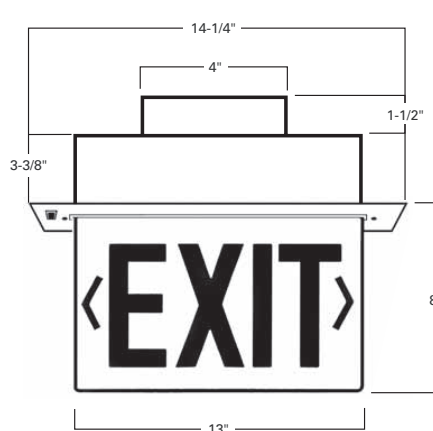
Catalog Number:

EUX6R

Notes: Providing equal not specified

Type:**XC**

LAI16-104794

EUR EUS SERIES**DIMENSIONS****Surface
EUS Series****Recessed
EUR Series****TECHNICAL DATA****Lamps**

The EU Series Edge-Lit Exits use energy efficient, long-life LED's to provide uniform diffuse illumination of the exit face. The low operating costs and zero maintenance requirement makes LED lamps the wisest choice for exit signs today. Emergency illumination is provided by LED lamps in the self-powered models.

Housing Construction

Rugged, durable anodized aluminum housing is impact resistant. Black powder coat painted mounting canopy provided. Housing is designed to allow easy swap out of exit lens when necessary. All EUS Series Exits can be wall, ceiling, or end mounted.

Trim Panel

Trim panels for the EU Series Edgelit Exits are injection molded from impact-resistant clear acrylic. The single face lens is available with a clear background. All double face lens come standard with a mirror background. Universal, fieldinstallable chevrons are provided in Red or Green allowing for universal configuration of the exit sign based on the directional needs of the application. The edge reflector further enhances visibility.

Solid-State Charger

Supplied with a 120/277 VAC, voltage regulated solid-state charger, the battery is recharged immediately upon restoration of AC current after a power failure. The charge circuit reacts to the condition of the battery in order to maintain peak battery capacity and maximize battery life. Solidstate construction recharges the battery following a power failure in accordance with UL 924.

Brownout Circuit

The brownout circuit on the exit monitors the flow of AC current to the exit and activates the emergency lighting system when a predetermined reduction of AC power occurs. This dip in voltage will cause most ballasted fixtures to extinguish causing loss of normal lighting even though a total power failure has not occurred.

Solid-State Transfer

The EU Series Edge-Lit Exit incorporates solid-state switching which eliminates corroded and pitted contacts or mechanical failures associated with relays. The switching circuit is designed to detect a loss of AC voltage and automatically energizes the lamps using DC power. Upon restoration of AC power, the DC power will be disconnected and the charger will automatically recharge the battery.

Test Switch/Power Indicator Light

A test switch located on the side of the exit permits the activation of the emergency circuit for a complete operational systems check. The Power Indicator Light provides visual assurance that the AC power is on.

Sealed Nickel Cadmium Battery (Self Powered Only)

Sure-Lites sealed nickel cadmium batteries are maintenance-free with a life expectancy of 15 years. The sealed rechargeable nickel cadmium battery offers high discharge rates and stable performance over a wide range of temperatures, from 0-40°C. The specially designed re-sealable vent automatically controls cell pressure, assuring safety and reliability. This battery is best suited for harsh ambient temperatures because the electrolyte is not active in the electrochemical process.

Warranty

All Sure-Lites' products are backed by a firm one-year warranty against defects in material and workmanship. Maintenance-free, long-life, sealed nickel cadmium batteries carry a fifteen year pro-rata warranty.



Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
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Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

Specifications and
dimensions subject to
change without notice.



VarioLED™ Flex HYDRA LD White



! Ra/CRI up to 95
! up to 144 Lumen/Watt



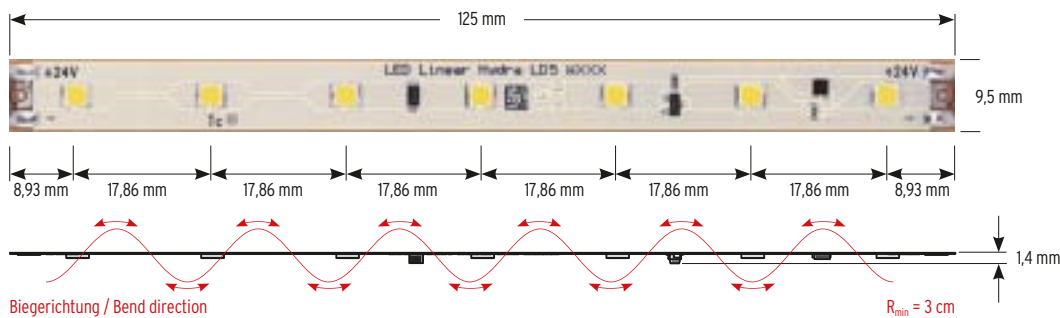
up to 40.3 Watt/m

up to 4350 Lumen/m

! One Bin Only: 3 MacAdam

up to Ra/CRI 95

Abmessungen & verfügbare Längen Dimensions & available lengths



Elektrische & Optische Betriebsdaten Electrical & output data

Teilungsmaß Step length	125 mm/7 LED
Spannung Voltage (V)	24 Volt (23 V _{min} , 25 V _{max})
Temperatur Temperature ²	T _{Cmin} = -25°C
Lagertemperatur Storage temperature	T _{Smin} = -30°C, T _{Smax} = 85°C
Außentemperatur Ambient temperature	T _{Amin} = -25°C
Ra CRI	bis zu up to 95
R9	bis zu up to 65

VarioLED™ Flex HYDRA	LD5	LD10	LD15	LD25	LD40
Leistung Power (W/m) ¹	4,8	9,6	15,4	25	40,3
Effizienz Efficacy (lm/W) ¹ @ W850	144	144	144	144	108
max. Länge max. length (m)	7,5	5	4	3	2
Watt/VPE Watt/Reel (W) ¹	36	48	61,6	75	80,6
Anzahl LED/VPE Number LED/Reel	420	280	224	168	112
Strom Current	1,5 A/25 mA per Step	2 A/50 mA per Step	2,56 A/80 mA per Step	3,12 A/130 mA per Step	3,36 A/210 mA per Step
Temp. Tc-Punkt Temp. Tc-point (T _{Cmax}) ²	70°C	70°C	70°C	75°C	85°C
max. Außentemp. max. Ambient temp. (T _{Amax})	50°C	50°C	50°C	45°C	35°C

Farbtemperatur Color temperature		LD5	LD10	LD15	LD25	LD40
		lumen/meter (lm/m) ¹				
W820	2000 K	400	800	1280	2090	-
W822	2200 K	460	920	1470	2380	-
W825	2500 K	520	1050	1680	2720	3440 (W824)
W827 W927	2700 K	470	1110	1780	2890	3740
W830 W930	3000 K	480	1180	1890	3070	3980
W835 W935	3500 K	490	1240	1980	3220	4230
W840 W940	4000 K	500	1270	2030	3290	4340
W850	5000 K	690	1380	2210	3600	4350

Tj Away®
LED LINEAR™ TECHNOLOGY

Up to 15 W/m no need for additional heat sinking on Al profile, more than 15 W/m VarioContour must be used to act as a heatsink (page 358).

ONE BIN ONLY

Lebensdauer Lifetime
L80/B10
> 60.000 h

Wx27/339
Photometrischer Code Photometric code

LM 79
LM 79 konform LM 79 compliant

LM 80
LM 80 konform LM 80 compliant

¹ Die angegebenen Daten sind typische Werte. Aufgrund von Produktionstoleranzen und der Toleranzen der elektrischen Bauteile können die Werte der elektrischen Leistung und des Lichtstroms um bis zu 10% nach oben oder unten abweichen.

² Der Tc-Punkt ist auf jedem Step des LED-Moduls gekennzeichnet. Der Tc-Punkt sollte im thermisch eingeschwungenen Zustand gemäß EN 60598-1 gemessen werden.

¹ The given data are typical values. Due to tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.

² The position of the Tc-point is marked on each step of the LED strip. The Tc-point should be measured in thermal equilibrium according to IEC EN 60598-1.

Nähere Erläuterungen zu Änderungen, Grenzwerten und Schwankungen im Herstellungsprozess finden Sie auf Seite 408.

For more details regarding catalogue changes, min and max data sheet values and production tolerances please see page 409.

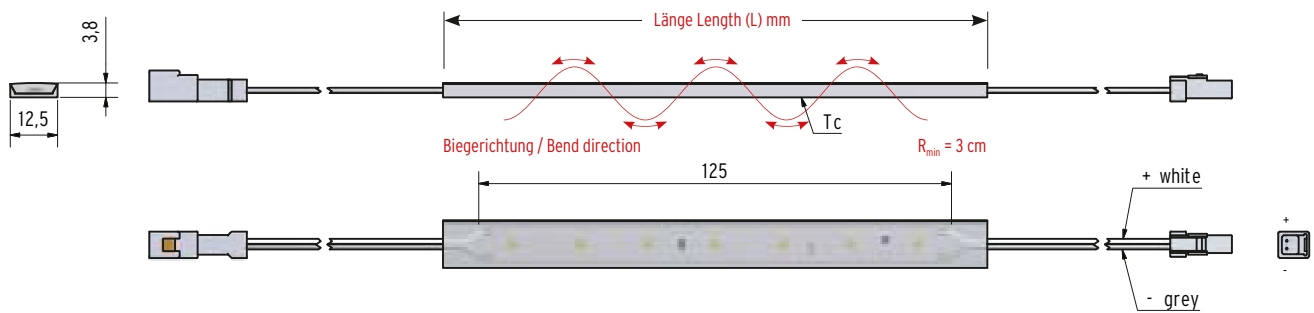


VarioLED™ Flex HYDRA LD White IP67



Water & UV resistant flexible linear LED luminaire in up to 7,5 m length in polyurethane encapsulation with white casing and with 200 mm IP67 mini connectors on both ends.

Abmessungen & verfügbare Längen Dimensions & available lengths



$L = N \times 125 + 19$; $L_{min} = 1 \times 125 + 19 = 144$ mm; $LD5 \triangle L_{max} = 7.519$ mm; $LD10 \triangle L_{max} = 5.019$ mm; $LD15 \triangle L_{max} = 4.019$ mm
($LD5 \triangle N = 1... 60$, $LD10 \triangle N = 1... 40$, $LD15 \triangle N = 1... 32$)

Tc-point: Entire encapsulated flexboard rear side

Electrical & output data

Farbtemperatur Color temperature ²		LD5	LD10	LD15
		lumen/meter (lm/m) ¹		
● W820	2500 K	340	680	1090
● W822	2900 K	390	780	1250
● W825	3300 K	450	890	1430
● W827	W927 3800 K	400	950	1510
● W830	W930 4300 K	400	1000	1600
● W835	W935 5100 K	420	1050	1690
● W840	W940 6100 K	430	1080	1720
● W850	9600 K	590	1180	1880

Same data as for VarioLED™ Flex HYDRA LD apply, except: 30% light loss and color shift compared to non encapsulated LED strip.

Please ask for custom specific adaptations like cable length and plugs.

¹ The given data are typical values. Due to tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.

² In case of IP67 products, tolerances in the color temperature can occur. For further explanation, please see page 476.

Order code

	Flex tape	Variant	Color rendering	Color temperature	Length	Ingress protection
Ihre Bestellnummer Your order code	VarioLED Flex HYDRA	LD __	W _	__	_____	IP67
Bestellnummer Beispiel Order code example	VarioLED Flex HYDRA	LD5	W9	27	7519	IP67

Accessories

erforderlich required	optional optional
24 V DC Konverter Power supply unit z. B. e. g. Art.-# 16000154	Steuerprotokoll Power control system z. B. e. g. Art.-# 17000037
Buchse Female connector z. B. e. g. Art.-# 15000142	3M Klebeband 3M Adhesive tape Art.-# 18200035
	Transparenter Montageclip Transparent mounting clip Art.-# 13000115

Details siehe Seite 338 ff. Details on page 338 ff.

VarioLED™ HYDRA LD White IP67



VarioLED™ HYDRA LD5 IP67, Contour 013

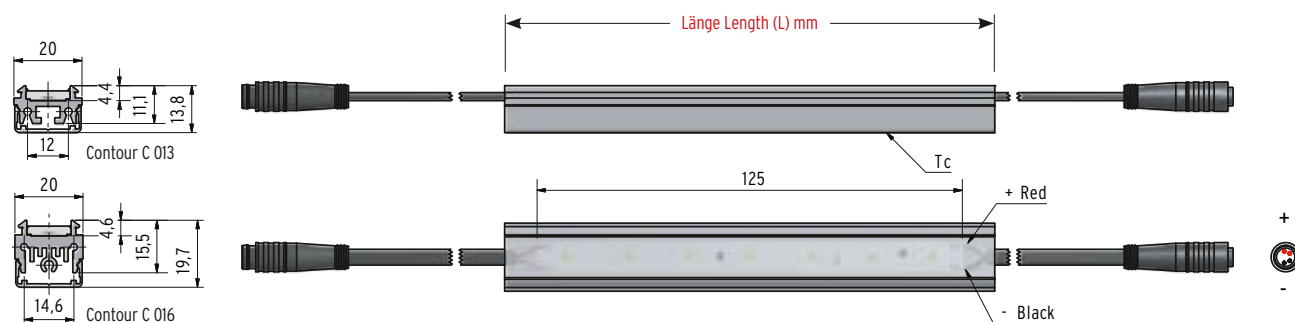


VarioLED™ HYDRA LD25 IP67, Contour 016



Water & UV resistant linear LED luminaire in aluminum profile with up to 4 m length, polyurethane encapsulation and 110 mm IP67 connectors on both ends.

Dimensions & available lengths



$L = N \times 125 + 19$; $L_{\min} = 1 \times 125 + 19 = 144$ mm; LD5/LD10/LD15 $\Delta L_{\max} = 4.019$ mm; LD25 $\Delta L_{\max} = 3.019$ mm
(LD5/LD10/LD15 $\Delta N = 1 \dots 32$, LD25 $\Delta N = 1 \dots 15$)

Tc-point: Entire Al-profile rear side

Electrical & output data

		LD5 in C 013	LD10 in C 013	LD15 in C 016	LD25 in C 016
Color temperature ²		lumen/meter (lm/m) ¹			
● W820	2500 K	320	640	1030	1670
● W822	2900 K	370	730	1170	1910
● W825	3300 K	420	840	1340	2180
● W827	W927 3800 K	370	890	1420	2310
● W830	W930 4300 K	380	940	1510	2450
● W835	W935 5100 K	390	990	1590	2580
● W840	W940 6100 K	400	1010	1620	2630
● W850	9600 K	550	1110	1770	2880

Same data as for VarioLED™ Flex HYDRA LD apply, except: 30% light loss and color shift compared to non encapsulated LED strip.

Please ask for custom specific adaptations like cable length and plugs.

¹ The given data are typical values. Due to tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.

² In case of IP67 products, tolerances in the color temperature can occur. For further explanation, please see page 476.

Order code

	Flex tape	Variant	Color rendering	Color temperature	Length	Ingress protection
Ihre Bestellnummer Your order code	VarioLED HYDRA	LD __	W _	__	__ _ _	IP67
Bestellnummer Beispiel Order code example	VarioLED HYDRA	LD5	W9	27	4019	IP67

Accessories

erforderlich required	optional optional
24 V DC Konverter Power supply unit z. B. e. g. Art.-# 16000154 Buchse Female connector z. B. e. g. Art.-# 15000091	1-10V DMX Remote Steuerprotokoll Power control system z. B. e. g. Art.-# 17000037 Halteklammer Mounting Clip Art.-# 10000040 Montage-Profil Mounting Profile Art.-# 10000039

Details siehe Seite 338 ff. Details on page 338 ff.



PROFESSIONAL
OUTDOOR LIGHTING

Type: EC

Model: _____

Project: WEBSTER ISB

SPECIFICATION SHEET

MODEL 1043 Architectural Series • Up & Accent

FIXTURE SPECIFICATIONS:

DOOR:

Die-cast, low copper content, A360 aluminum offers maximum corrosion protection. Stainless steel fasteners affixed to a minimalistic styled flat door (standard). Door is designed to shed water from the lens surface. Also available as an accessory is a die-cast medium shield **CS**.

HOUSING:

Die-cast A360 aluminum. Optic and driver compartment separately sealed while being electrically connected. Housing aiming achieved via a Vista patented Infinity Knuckle (see MOUNTING).

FINISH:

Durable powder coat finish available in Glossy Gray, Black, Architectural Bronze, Dark Bronze, Verde, Pewter, Architectural Brick, Granite, Terracotta, Rust, Hunter Green, Mocha, Special Bronze, Weathered Bronze, Weathered Iron, and White. Custom Powder coat finishes available on request.

LED:

Cree® MT-G2 High Density Array (HDA) driven at 500mA, 700mA, 750mA, 1000mA, 1400mA, or 1750mA.

COLOR TEMPERATURE:

LED's are offered in 3000°K, 3500°K, 4000°K, or 5000°K CCT ANSI white 4 step Cree® Easy White™ bins

LIGHT DISTRIBUTION:

Very Narrow Spot **VNS** (16° FWHM), Narrow Spot **NS** (19° FWHM), Medium Flood **MF** (30° FWHM), and Wide Flood **WF** (46° FWHM).

REFLECTOR:

High-purity, vacuum metalized, specular or semi-specular optics designed for maximum performance and uniformity. Very Narrow Spot **VNS** optic incorporates an internal source shield to eliminate unwanted glare outside the beam pattern.

LENS/SEAL:

2.7 mm thick tempered and sealed clear glass sealed with a closed cell molded silicone gasket.

WIRING:

Prewired with 150° C-rated wire.

DRIVER:

Integral CUL listed LED driver. Non-dimmable (**ND**), dimming drivers available in 0-10V (**010**), TRIAC dimming (120V input only) (**LE**) or ELV dimming (**TE**).

ACCESSORIES:

Barn Doors **BD**, Full Shield **FS**, and Half Shield **HS** available. Accessories are attached into pre-existing slots located on the underside of the fixture door providing for a fastener free appearance.

MOUNTING:

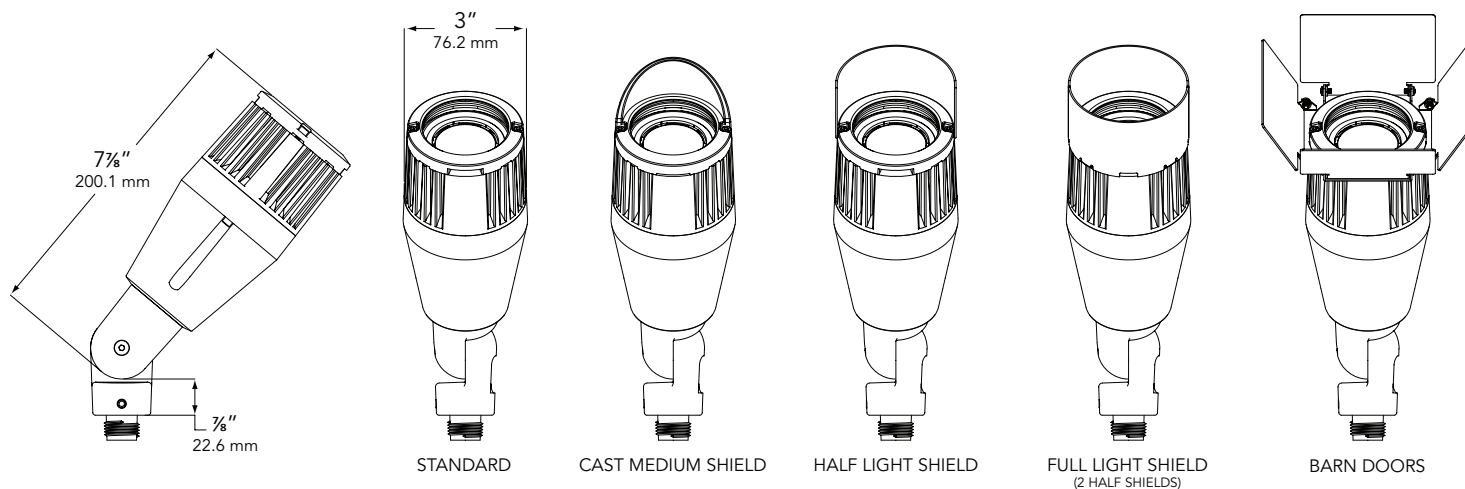
Infinity Knuckle - Die-cast, copper-free aluminum with stainless steel stem. A fully sealed spherical grommet allows infinite adjustment capabilities.

CERTIFICATION:

UL & CUL wet location certified.

All Vista luminaires are **MADE IN THE U.S.A.**

DIMENSIONS:



Vista Professional Outdoor Lighting reserves the right to modify the design and/or construction of the fixture shown without further notification.



SPECIFICATION SHEET

MODEL 1043 Architectural Series • Up & Accent Lights

LAMP SPECIFICATIONS

LED:

- High lumen output LED powered for high efficacy.
- Cree® MT-G2 High Density Array (HDA), driven at 500mA, 700mA, 750mA, 1000mA, 1400mA, or 1750mA.
- 3000°K, 3500°K, 4000°K, or 5000°K CCT ANSI white 4 step Cree® Easy White™ bins.
- 135-1212 Delivered Lumens.

OPTICS/AIMING:

- High-purity, vacuum metalized, specular or semi-specular optics designed for maximum performance and uniformity.
- Very Narrow Spot **VNS** (16° FWHM), Narrow Spot **NS** (19° FWHM), Medium Flood **MF** (30° FWHM), and Wide Flood **WF** (46° FWHM).
- Housing aiming achieved via a Vista patented Infinity Knuckle (see MOUNTING).

ELECTRICAL:

- Multi-Volt **MV** 120V-277V universal input.
- Prewired with 150° C-rated wire.
- Constant current 700mA or 1A output driver (non-dimmable).
- Dimmable constant current drivers available in 500mA, 750mA, 1000mA, 1400mA, 1750mA outputs. Available in linear 0-10V dimming (**010**), TRIAC dimming (**LE**), or ELV dimming (**TE**). (Note: TRIAC dimming available with 120V input only).

FIXTURE ORDERING INFORMATION

TO ORDER FIXTURE: Select appropriate choice from each column as in the following example.

EXAMPLE: 1043-GG-NS-40-C-MV-ND-HS

MODEL	FINISH	DISTRIBUTION	COLOR TEMP	DELIVERED LUMENS	VOLTAGE	DIMMING	ACCESSORIES
1043	GG - Glossy Gray B - Black Z - Architectural Bronze DZ - Dark Bronze LZ - Light Bronze G - Verde P - Pewter BR - Architectural Brick GT - Granite TC - Terracotta R - Rust HG - Hunter Green M - Mocha SB - Special Bronze WB - Weathered Bronze WI - Weathered Iron W - White	VNS - Very Narrow Spot* NS - Narrow Spot** MF - Medium Flood** WF - Wide Flood**	30 - 3000°K 35 - 3500°K 40 - 4000°K 50 - 5000°K	A - 0-200 Lumens B - 200-400 Lumens C - 400-600 Lumens D - 600-750 Lumens E - 750-1050 Lumens F - 1050-1250 Lumens * 1043 VNS ** 1043 NS, MF, WF	MV - Multi-Volt (120V-277V)	ND - No Dimming 010 - 0-10V Dimming LE - TRIAC Dimming TE - ELV Dimming	BD - Barn Doors FS - Full Light Shield HS - Half Light Shield CS - Cast Shield Honeycomb louver

* 1043-VNS only available in A, B Delivered Lumen Packages.

** 1043-NS, MF, WF only available in B, C, D, E, F Delivered Lumen Packages

LUMEN OUTPUT PACKAGES

Watts	Lumens
-------	--------

Beam Spread	A	B	C	D	E	F
VNS	4.1 Watts 135 Lumens	15.6 Watts 361 Lumens				
NS		4.1 Watts 364 Lumens	7.4 Watts 566 Lumens	10.0 Watts 738 Lumens	15.6 Watts 1035 Lumens	19.1 Watts 1212 Lumens
MF		4.1 Watts 321 Lumens	7.4 Watts 487 Lumens	9.7 Watts 711 Lumens	15.6 Watts 1035 Lumens	19.7 Watts 1188 Lumens
WF		4.1 Watts 332 Lumens	7.6 Watts 542 Lumens	11.4 Watts 687 Lumens	15.3 Watts 967 Lumens	19.0 Watts 1052 Lumens

Vista Professional Outdoor Lighting reserves the right to modify the design and/or construction of the fixture shown without further notification.



PROFESSIONAL
OUTDOOR LIGHTING

Type: EC MOUNTING STAKE

Model: _____

Project: WEBSTER ISB

SPECIFICATION SHEET

MODEL MP-150 Mounting Pedestal Landscape Series • Accessories

FIXTURE SPECIFICATIONS:

DESCRIPTION:

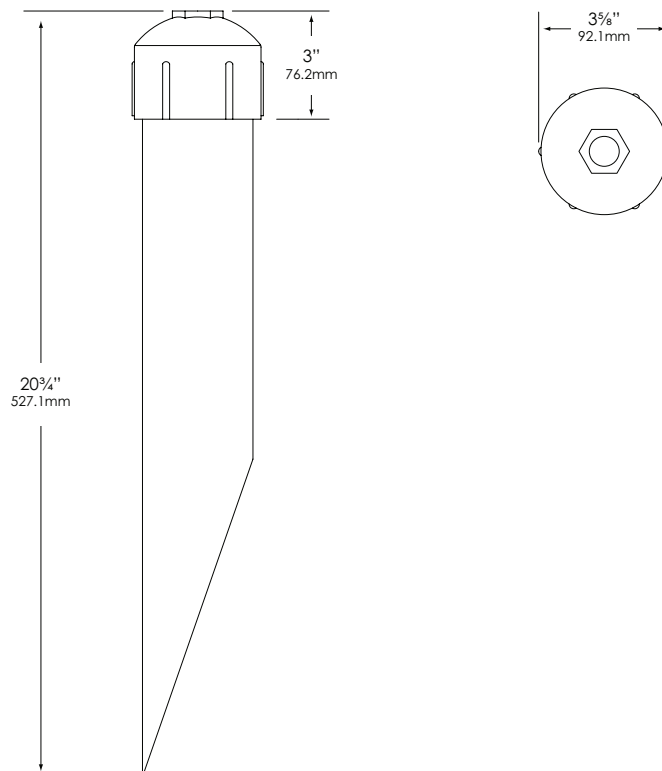
3" diameter, black PVC mounting pedestal.

MOUNTING:

½" FPT for fixture mounting.

All Vista luminaires are **MADE IN THE U.S.A.**

DIMENSIONS:



Vista Professional Outdoor Lighting reserves the right to modify the design and/or construction of the fixture shown without further notification.



VarioLED™ Flex HYDRA LD White



! Ra/CRI up to 95
! up to 144 Lumen/Watt



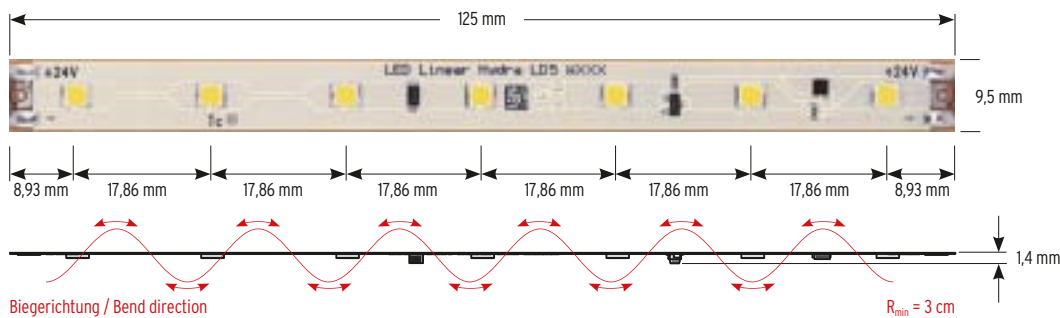
up to 40.3 Watt/m

up to 4350 Lumen/m

! One Bin Only: 3 MacAdam

up to Ra/CRI 95

Abmessungen & verfügbare Längen Dimensions & available lengths



Elektrische & Optische Betriebsdaten Electrical & output data

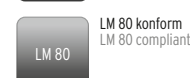
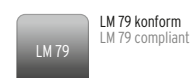
Teilungsmaß Step length	125 mm/7 LED
Spannung Voltage (V)	24 Volt (23 V _{min} , 25 V _{max})
Temperatur Temperature ²	T _{Cmin} = -25°C
Lagertemperatur Storage temperature	T _{Smin} = -30°C, T _{Smax} = 85°C
Außentemperatur Ambient temperature	T _{Amin} = -25°C
Ra CRI	bis zu up to 95
R9	bis zu up to 65

VarioLED™ Flex HYDRA	LD5	LD10	LD15	LD25	LD40
Leistung Power (W/m) ¹	4,8	9,6	15,4	25	40,3
Effizienz Efficacy (lm/W) ¹ @ W850	144	144	144	144	108
max. Länge max. length (m)	7,5	5	4	3	2
Watt/VPE Watt/Reel (W) ¹	36	48	61,6	75	80,6
Anzahl LED/VPE Number LED/Reel	420	280	224	168	112
Strom Current	1,5 A/25 mA per Step	2 A/50 mA per Step	2,56 A/80 mA per Step	3,12 A/130 mA per Step	3,36 A/210 mA per Step
Temp. Tc-Punkt Temp. Tc-point (T _{Cmax}) ²	70°C	70°C	70°C	75°C	85°C
max. Außentemp. max. Ambient temp. (T _{Amax})	50°C	50°C	50°C	45°C	35°C

Farbtemperatur Color temperature		LD5	LD10	LD15	LD25	LD40
		lumen/meter (lm/m) ¹				
W820	2000 K	400	800	1280	2090	-
W822	2200 K	460	920	1470	2380	-
W825	2500 K	520	1050	1680	2720	3440 (W824)
W827 W927	2700 K	470	1110	1780	2890	3740
W830 W930	3000 K	480	1180	1890	3070	3980
W835 W935	3500 K	490	1240	1980	3220	4230
W840 W940	4000 K	500	1270	2030	3290	4340
W850	5000 K	690	1380	2210	3600	4350



Up to 15 W/m no need for additional heat sinking on Al profile, more than 15 W/m VarioContour must be used to act as a heatsink (page 358).



¹ Die angegebenen Daten sind typische Werte. Aufgrund von Produktionstoleranzen und der Toleranzen der elektrischen Bauteile können die Werte der elektrischen Leistung und des Lichtstroms um bis zu 10% nach oben oder unten abweichen.

² Der Tc-Punkt ist auf jedem Step des LED-Moduls gekennzeichnet. Der Tc-Punkt sollte im thermisch eingeschwungenen Zustand gemäß EN 60598-1 gemessen werden.

¹ The given data are typical values. Due to tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.

² The position of the Tc-point is marked on each step of the LED strip. The Tc-point should be measured in thermal equilibrium according to IEC EN 60598-1.

Nähere Erläuterungen zu Änderungen, Grenzwerten und Schwankungen im Herstellungsprozess finden Sie auf Seite 408.

For more details regarding catalogue changes, min and max data sheet values and production tolerances please see page 409.

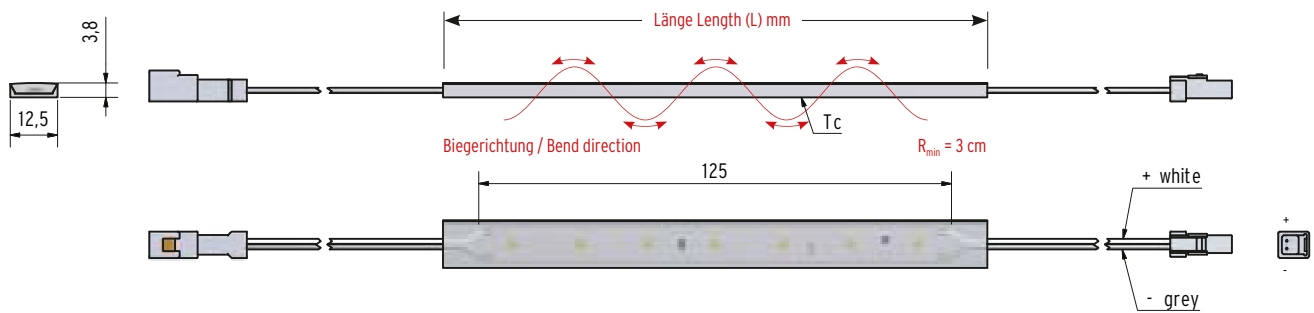


VarioLED™ Flex HYDRA LD White IP67



Water & UV resistant flexible linear LED luminaire in up to 7,5 m length in polyurethane encapsulation with white casing and with 200 mm IP67 mini connectors on both ends.

Abmessungen & verfügbare Längen Dimensions & available lengths



$L = N \times 125 + 19$; $L_{\min} = 1 \times 125 + 19 = 144$ mm; $LD5 \triangle L_{\max} = 7.519$ mm; $LD10 \triangle L_{\max} = 5.019$ mm; $LD15 \triangle L_{\max} = 4.019$ mm
($LD5 \triangle N = 1... 60$, $LD10 \triangle N = 1... 40$, $LD15 \triangle N = 1... 32$)

Tc-point: Entire encapsulated flexboard rear side

Electrical & output data

Farbtemperatur Color temperature ²		LD5	LD10	LD15
		lumen/meter (lm/m) ¹		
● W820	2500 K	340	680	1090
● W822	2900 K	390	780	1250
● W825	3300 K	450	890	1430
● W827	W927 3800 K	400	950	1510
● W830	W930 4300 K	400	1000	1600
● W835	W935 5100 K	420	1050	1690
● W840	W940 6100 K	430	1080	1720
● W850	9600 K	590	1180	1880

Same data as for VarioLED™ Flex HYDRA LD apply, except: 30% light loss and color shift compared to non encapsulated LED strip.

Please ask for custom specific adaptations like cable length and plugs.

¹ The given data are typical values. Due to tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.

² In case of IP67 products, tolerances in the color temperature can occur. For further explanation, please see page 476.

Order code

	Flex tape	Variant	Color rendering	Color temperature	Length	Ingress protection
Ihre Bestellnummer Your order code	VarioLED Flex HYDRA	LD __	W _	__	_____	IP67
Bestellnummer Beispiel Order code example	VarioLED Flex HYDRA	LD5	W9	27	7519	IP67

Accessories

erforderlich required	optional optional
24 V DC Konverter Power supply unit z. B. e. g. Art.-# 16000154	Steuerprotokoll Power control system z. B. e. g. Art.-# 17000037
Buchse Female connector z. B. e. g. Art.-# 15000142	3M Klebeband 3M Adhesive tape Art.-# 18200035
	Transparenter Montageclip Transparent mounting clip Art.-# 13000115

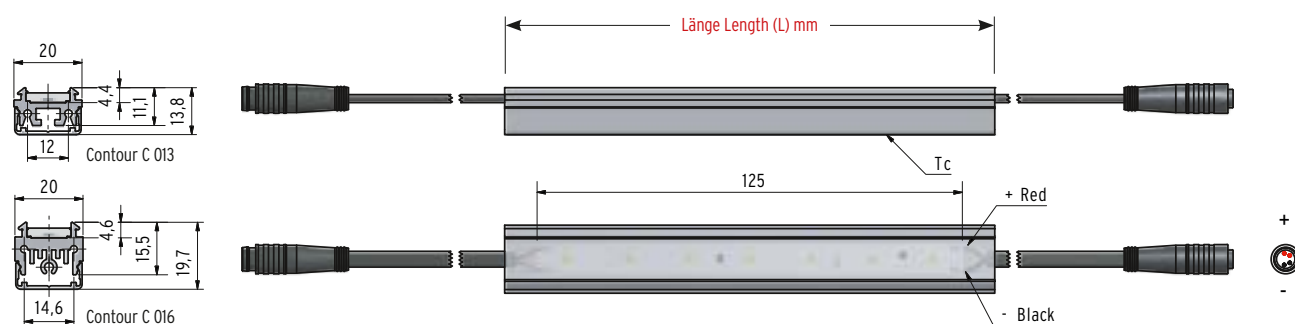
Details siehe Seite 338 ff. Details on page 338 ff.

VarioLED™ HYDRA LD White IP67



Water & UV resistant linear LED luminaire in aluminum profile with up to 4 m length, polyurethane encapsulation and 110 mm IP67 connectors on both ends.

Dimensions & available lengths



$L = N \times 125 + 19$; $L_{\min} = 1 \times 125 + 19 = 144$ mm; LD5/LD10/LD15 $\Delta L_{\max} = 4.019$ mm; LD25 $\Delta L_{\max} = 3.019$ mm
(LD5/LD10/LD15 $\Delta N = 1 \dots 32$, LD25 $\Delta N = 1 \dots 15$)

Tc-point: Entire Al-profile rear side

Electrical & output data

		LD5 in C 013	LD10 in C 013	LD15 in C 016	LD25 in C 016
Color temperature ²		lumen/meter (lm/m) ¹			
● W820	2500 K	320	640	1030	1670
● W822	2900 K	370	730	1170	1910
● W825	3300 K	420	840	1340	2180
● W827	W927 3800 K	370	890	1420	2310
● W830	W930 4300 K	380	940	1510	2450
● W835	W935 5100 K	390	990	1590	2580
● W840	W940 6100 K	400	1010	1620	2630
● W850	9600 K	550	1110	1770	2880

Same data as for VarioLED™ Flex HYDRA LD apply, except: 30% light loss and color shift compared to non encapsulated LED strip.

Please ask for custom specific adaptations like cable length and plugs.

¹ The given data are typical values. Due to tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.

² In case of IP67 products, tolerances in the color temperature can occur. For further explanation, please see page 476.

Order code

	Flex tape	Variant	Color rendering	Color temperature	Length	Ingress protection
Ihre Bestellnummer Your order code	VarioLED HYDRA	LD __	W _	__	__ _ _	IP67
Bestellnummer Beispiel Order code example	VarioLED HYDRA	LD5	W9	27	4019	IP67

Accessories

erforderlich required



Konverter
Power supply unit
z. B. e. g.
Art.-# 16000154



Buchse
Female connector
z. B. e. g.
Art.-# 15000091

optional optional



Steuerprotokoll
Power control system
z. B. e. g.
Art.-# 17000037



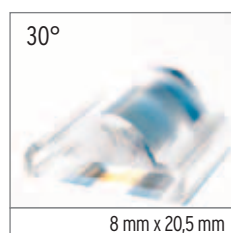
Halteklammer
Mounting Clip
Art.-# 10000040



Montage-Profil
Mounting Profile
Art.-# 10000039

Details siehe Seite 338 ff. Details on page 338 ff.

Linear lenses



Description	LinearOptic 003/006 Clear 30°
Art.-No.	12000020
Unit	meter (m)
Min. OQ	30



Linear lens 30° for VarioContour 013/016 (L x H x W) 2,000 mm x 8 mm x 20.5 mm



Description	LinearOptic 003/006 Clear 60°
Art.-No.	12000021
Unit	meter (m)
Min. OQ	30



Linear lens 60° for VarioContour 013/016 (L x H x W) 2,000 mm x 8 mm x 20.5 mm



Description	LinearOptic 003/006 Clear 90°
Art.-No.	12000022
Unit	meter (m)
Min. OQ	30



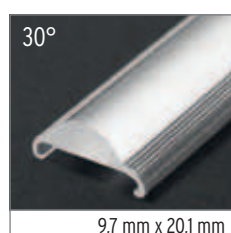
Linear lens 90° for VarioContour 013/016 (L x H x W) 2,000 mm x 8 mm x 20.5 mm



Description	LinearOptic 003/006 Diffuse 15°
Art.-No.	12000049
Unit	meter (m)
Min. OQ	30



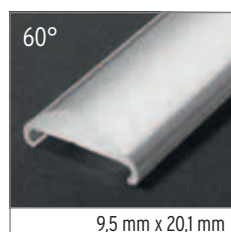
Linear lens 15° diffuse for VarioContour 013/016, (L x H x W) 2,000 mm x 11 mm x 21 mm



Description	LinearOptic 003/006 Diffuse 30°
Art.-No.	12000029
Unit	meter (m)
Min. OQ	30



Linear lens 30° diffuse for VarioContour 013/016, (L x H x W) 2,000 mm x 9.7 mm x 20.1 mm



Description	LinearOptic 003/006 Diffuse 60°
Art.-No.	12000031
Unit	meter (m)
Min. OQ	30



Linear lens 60° diffuse for VarioContour 013/016, (L x H x W) 2,000 mm x 9.5 mm x 20.1 mm

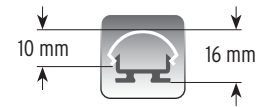


Description	LinearOptic 003/006 Diffuse 90°
Art.-No.	12000032
Unit	meter (m)
Min. OQ	30



Linear lens 90° diffuse for VarioContour 013/016, (L x H x W) 2,000 mm x 9.5 mm x 20.1 mm

VarioContour 003



9,5 mm x 20,1 mm

EB

Bezeichnung Description	LinearOptic 003/006 Diffuse 60°
-------------------------	---------------------------------

Artikelnummer Art.-No.	12000031
------------------------	----------

Einheit Unit	meter (m)
--------------	-----------

Min. VPE Min. OQ	30
------------------	----

Linearlinse 60° diffus für VarioContour 003/006, (L x H x B) 2.000 mm x 9,5 mm x 20,1 mm;
empfohlen für VarioLED™ Flex APOLLO2, DONAR2, HERCULES, KRONOS und ZEUS2

Linear lens 60° diffuse for VarioContour 003/006, (L x H x W) 2,000 mm x 9.5 mm x 20.1 mm;
recommended for VarioLED™ Flex APOLLO2, DONAR2, HERCULES, KRONOS and ZEUS2



9,5 mm x 20,1 mm

ED

Bezeichnung Description	LinearOptic 003/006 Diffuse 90°
-------------------------	---------------------------------

Artikelnummer Art.-No.	12000032
------------------------	----------

Einheit Unit	meter (m)
--------------	-----------

Min. VPE Min. OQ	30
------------------	----

Linearlinse 90° diffus für VarioContour 003/006, (L x H x B) 2.000 mm x 9,5 mm x 20,1 mm;
empfohlen für VarioLED™ Flex APOLLO2, DONAR2, HERCULES, KRONOS und ZEUS2

Linear lens 90° diffuse for VarioContour 003/006, (L x H x W) 2,000 mm x 9.5 mm x 20.1 mm;
recommended for VarioLED™ Flex APOLLO2, DONAR2, HERCULES, KRONOS and ZEUS2



0°

Bezeichnung Description	VarioClip 003/006
-------------------------	-------------------

Artikelnummer Art.-No.	13000006
------------------------	----------

Einheit Unit	Stück/piece (pc)
--------------	------------------

Min. VPE Min. OQ	10
------------------	----

Halteklammer aus Kunststoff für VarioContour 003/006, (L x H x B) 33,45 mm x 18,7 mm x 6,5 mm
Plastic mounting clip for VarioContour 003/006, (L x H x W) 33.45 mm x 18.7 mm x 6.5 mm



15°

Bezeichnung Description	VarioClip 003/006 15°
-------------------------	-----------------------

Artikelnummer Art.-No.	13000006-15°
------------------------	--------------

Einheit Unit	Stück/piece (pc)
--------------	------------------

Min. VPE Min. OQ	10
------------------	----

Halteklammer aus Kunststoff für VarioContour 003/006 mit 15° Neigungswinkel, (L x H x B) 35 mm x 20,8 mm x 10,8 mm
Plastic mounting clip for VarioContour 003/006 with inclination angle 15°, (L x H x W) 35 mm x 20.8 mm x 10.8 mm



30°

Bezeichnung Description	VarioClip 003/006 30°
-------------------------	-----------------------

Artikelnummer Art.-No.	13000006-30°
------------------------	--------------

Einheit Unit	Stück/piece (pc)
--------------	------------------

Min. VPE Min. OQ	10
------------------	----

Halteklammer aus Kunststoff für VarioContour 003/006 mit 30° Neigungswinkel, (L x H x B) 35 mm x 20,8 mm x 14,8 mm
Plastic mounting clip for VarioContour 003/006 with inclination angle 30°, (L x H x W) 35 mm x 20.8 mm x 14.8 mm



45°

Bezeichnung Description	VarioClip 003/006 45°
-------------------------	-----------------------

Artikelnummer Art.-No.	13000006-45°
------------------------	--------------

Einheit Unit	Stück/piece (pc)
--------------	------------------

Min. VPE Min. OQ	10
------------------	----

Halteklammer aus Kunststoff für VarioContour 003/006 mit 45° Neigungswinkel, (L x H x B) 35 mm x 19,5 mm x 18,1 mm
Plastic mounting clip for VarioContour 003/006 with inclination angle 45°, (L x H x W) 35 mm x 19.5 mm x 18.1 mm

EB & ED MOUNTING CLIPS

Type SA -

Each run configured to give +/- 3" spacing between columns (880mm and 1380mm lengths are non standard but required to meet lengths needed)

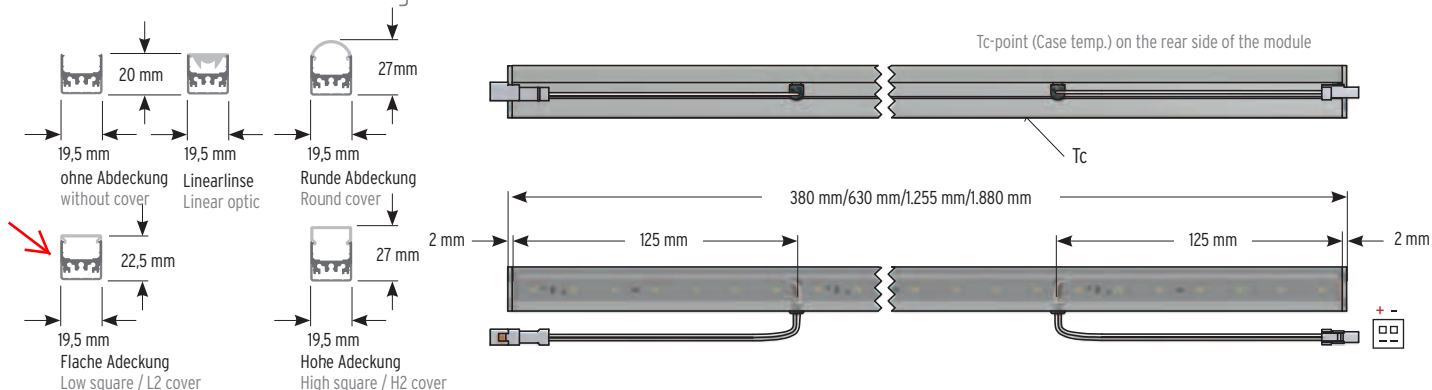


XOOLINE™ HYDRA White IP40¹



24 V, LED-linear luminaire in an aluminum profile, offering 12 high quality optics to choose from. The diffuser optics, clear, diffuse or opal covers, make soft light settings possible. Among the linear optics, a 10° wall grazer or 30° and 60° general illumination optics allow precise light control. Available in 4 standardized lengths, including mounting profile. With protection ratings of IP10 and IP40. Japanese LED of the highest quality. "One Bin Only" within 3 MacAdam guarantees constant color temperature and highest light quality at a lifetime of > 60,000 h (L80/B10). Up to CRI 96. Made in Germany.

Dimensions & available lengths

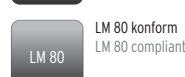
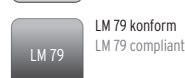
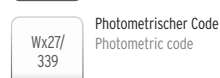
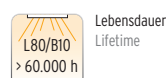


Elektrische & Optische Betriebsdaten Electrical & output data

Voltage	24 Volt (23 V _{min} , 25 V _{max})
Temperature ³	T _{cmin} = -25°C, T _{cmax} (untere Tabelle Table below)
Storage temperature	T _{smin} = -30°C, T _{smax} = 85°C
Ambient temperature	T _a > -25°C, T _a > max (untere Tabelle Table below)
Ra CRI	bis zu up to 95
R9	bis zu up to 65

XOOLINE™ HYDRA	LD5	LD10	LD15	LD25	LD40	HD6	HD10	HD15	HD25	HD36
Power (W/m) ²	5	10	15	25	40	6	10	15	25	36
Efficacy (lm/W) ²	132	131	140	137	103	132	131	140	137	139
max. serielle Lauflänge bei einer Einspeisung max. serial run length (mm)	7500	5000	4000	3000	2000	5000	5000	4000	3000	2000
Temp. Tc-Punkt Temp. Tc-point (T _{cmax}) ³	70°C	70°C	70°C	75°C	85°C	70°C	70°C	70°C	75°C	85°C
max. Außentemp. max. Ambient temp. (T _a max)	50°C	50°C	40°C	40°C	35°C	50°C	50°C	50°C	45°C	35°C

		LD5	LD10	LD15	LD25	LD40	HD6	HD10	HD15	HD25	HD36
Color temperature		lumen/meter (lm/m) ¹ @clear cover ⁴									
● W820	2000 K	380	760	1220	1980	-	460	760	1220	1980	2900
● W822	2200 K	440	870	1390	2270	-	520	870	1390	2270	3310
● W825	2500 K	500	1000	1590	2590	3370	600	1000	1590	2590	3780
● W827	W927 2700 K	450	1060	1690	2750	3560	530	890	1690	2750	4010
→ ● W830	W930 3000 K	450	1120	1790	2910	3780	540	910	1790	2910	4260
● W835	W935 3500 K	470	1180	1880	3060	4020	560	930	1880	3060	4470
● W840	W940 4000 K	480	1200	1920	3130	4120	570	960	1920	3130	4570
● W850	5000 K	660	1310	2100	3420	4130	790	1310	2100	3420	5000



¹ Without cover the IP protection level is reduced from IP40 to IP10.

² The given data are typical values. Due to tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.

³ The Tc-point should be measured in thermal equilibrium according to IEC EN 60598-1.

⁴ Sample values.

! Note: -25% luminous flux at opal and -2% with diffuse cover.

Order code

Your order code	XOOLINE HYD	---	W	---	---	---	-C00	IP---
Order code example	XOOLINE HYD	HD10	W9	27	1880	OL-C002		IP40

LED tape

HYDRA LD5	LD5
HYDRA LD10	LD10
HYDRA LD15	LD15
HYDRA LD25	LD25
HYDRA LD40	LD40
HYDRA HD6	HD6
HYDRA HD10	HD10
HYDRA HD15	HD15
HYDRA HD25	HD25
HYDRA HD36	HD36

Color rendering

> 80	8
> 90 (only LD5, HD6, HD10)	9

Color temperature

2000 K	20
2200 K	22
2500 K	25
2700 K	27
3000 K	30
3500 K	35
4000 K	40
5000 K	50

Length

380 mm	0380	880 mm	880 [^]
630 mm	0630	1380 mm	1380 [^]
1255 mm	1255		
1880 mm	1880		

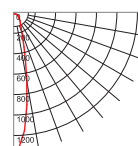
Cover / Lens options

No cover/lens	NC-C00x ⁵
10° Diffuse	10D-C004
30° Diffuse	30D-C004
60° Diffuse	60D-C004
Opal round cover	OR-C00x ⁵
Diffuse round cover	DR-C00x ⁵
Clear round cover	CR-C00x ⁵
Opal low square cover	OL-C00x ⁵
Diffuse low square cover	DL-C00x ⁵
Clear low square cover	CL-C00x ⁵
Opal high square cover	OH-C00x ⁵
Diffuse high square cover	DH-C00x ⁵
Clear high square cover	CH-C00x ⁵

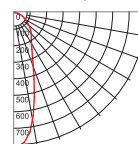
Ingress protection

IP10 (without optic / cover)	IP10
IP40	IP40

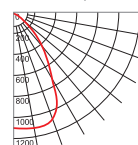
[^] non standard lengths added for legths needed on project



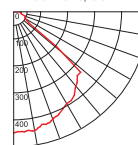
Lineare Linse, 10°⁶
Linear lens, 10°⁶



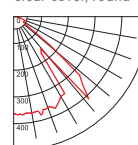
Lineare Linse, 30°⁶
Linear lens, 30°⁶



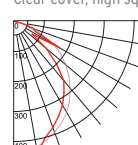
Lineare Linse, 60°⁶
Linear lens, 60°⁶



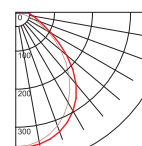
Klare Abdeckung, rund⁶
Clear cover, round⁶



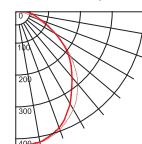
Klare Abdeckung, hoch⁶
Clear cover, high square⁶



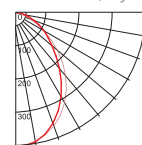
Klare Abdeckung, flach⁶
Clear cover, flat⁶



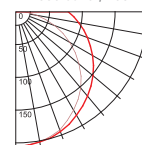
Diffuse Abdeckung, rund⁶
Diffuse cover, round⁶



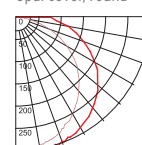
Diffuse Abdeckung, hoch⁶
Diffuse cover, high square⁶



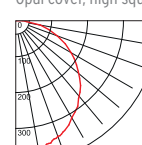
Diffuse Abdeckung, flach⁶
Diffuse cover, flat⁶



Opale Abdeckung, rund⁶
Opal cover, round⁶



Opale Abdeckung, hoch⁶
Opal cover, high square⁶



Opale Abdeckung, flach⁶
Opal cover, flat⁶

⁵ C004 für HYDRA HD36 und LD40 notwendig, ansonsten C002

⁵ C004 required for HYDRA HD36 and LD40 tapes, C002 else.

⁶ DIN 5040:A40

· Nähere Erläuterungen zu Änderungen, Grenzwerten und Schwankungen im Herstellungsprozess finden Sie auf Seite 398.

· For more details regarding catalogue changes, min and max data sheet values and production tolerances please see at page 399.

Please choose your accessories

Mounting	Art.-#
☒ Montagekanal in voller Länge (autom. für jede Leuchte im Lieferumfang enthalten) Full length mounting channel (automatically included for every fixture)	10000039

Anschlusskabel vom Netzgerät Lead connector from driver	Art.-#
☐ VarioCon Female Mini 2 x 0,34 mm ² , 2 m IP67	15000142
☐ VarioCon Extension Mini 2 x 0,34 mm ² , 2 m IP67	15000144
☐ VarioCon Female Mini Protection Cap Mono IP67	15000218

Recommended drivers	Art.-#
☐ VarioPSU 24V/100W IP20/IP40 Black, 220 - 240 V supply	16000075

Empfohlene Steuerungen Recommended controls	Art.-#
☐ VarioControl LinearDrive 210D DALI	17000037

TYPE EH
074684 (IRON
RUST &
BLACK)-17258



PRODUCT CODE 074684

PROJECT

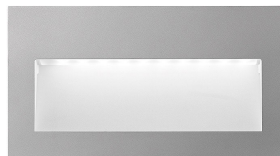
TYPE

ALUTECHRO



Part number	074684
Lampholder:	LED
Wattage (W):	11 W
Colour / RAL:	ANODIZED ALUMINUM - WHITE LED
Degree of protection:	IP 66
Kelvin:	3000
Optic:	ASIMMETRIC WIDE REFLECTOR
Luminaire lumen output:	396 lm
Lifetime:	35000 h
cULus:	□
Voltage:	120/277V

0-10V DIMMING

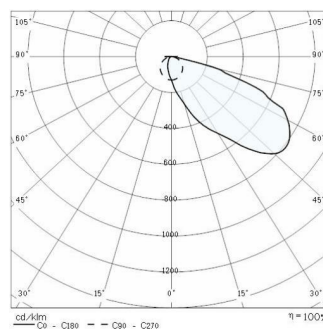


Description

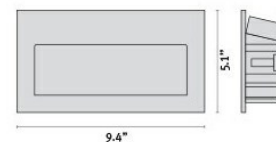
Series of Class I LED luminaires for recessed wall mounting.

- Housing in silver anodised aluminum.
- All versions are equipped with either white 3000 K or 4000 K LEDs.
- LED driver included.
- Fixtures provided complete with LED circuit.
- Colour rendering index CRI > 80.
- LED circuit designed in compliance with the current Lumen Maintenance (LM80) regulation, with reliable quality of light for a life up to 50,000 hours, corresponding to L70 Ta 25°C. Luminaire, driver and other components that differ from the LED circuit not included.
- IP 65 connector included.
- Supplied with 1 m long HORN-5 cable (different lengths available on demand).
- Recessed stainless steel housing to be ordered separately.
- Consult factory for custom colors.
- Consult factory for non-catalogued kelvin temps.

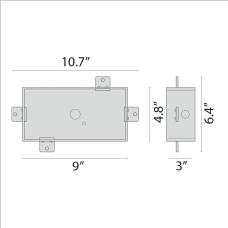
TECHNICAL DATA



TECHNICAL DRAWINGS



ALU TECH RO



076494
Recessed Alu RO

TYPE EL

99856-99626-RAL-COLOR

BEGA LED system bollard - luminaire head with shielded light - 360°

Enclosure: Housing constructed of die-cast aluminum. Die-castings are marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy. Glass diffuser, inside white. Fully gasketed for weather tight operation using molded silicone gasket.

Installation: BEGA LED system bollards are designed for easy attachment to system bollard tubes using an interlocking stainless steel mechanism and stainless steel set screw threaded into stainless steel insert. An accompanying bollard tube must be selected for proper installation, see below chart for compatible tube options.

Electrical: 24.3W LED luminaire, 28.6 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver, 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 3000K with a >80 CRI. Available in 4000K (>80 CRI); add suffix K4 to order.

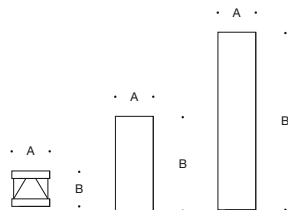
Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

Weight: 10.2 lbs

Luminaire Lumens: 1671



Bollard heads - shielded with reflector - 180°

Lamp	A	B
99 856 24.3W LED	7 1/2	7 1/4

Bollard tubes for luminaire heights 19 3/4 - 21 1/4

	A	B	Anch. unit
99 615	7 1/2	14 1/2	79 817

Bollard tubes for luminaire heights 31 1/2 - 39 1/4

Integrated components	Door	A	B	Anch. unit
99 622 —	✓	7 1/2	32	79 818
99 644 1 LED floodlight 19.3W	✓	7 1/2	32	79 818
99 626 GFCI outlet	✓	7 1/2	32	79 818
99 658 Passive infrared motion sensor	✓	7 1/2	32	79 818
99 635 Emergency lighting battery 10W	✓	7 1/2	32	79 818

< VERIFY COLOR



Wall Wash WW4

Type RQ
Webster ISB

one or two T5 or T5HO lamps

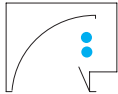
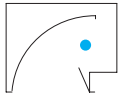
or one or two T8 lamps

Linear Lighting

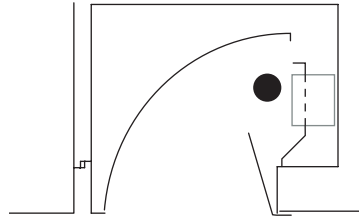


Wall Wash WW4

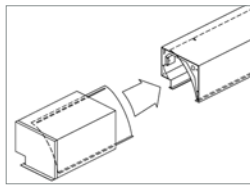
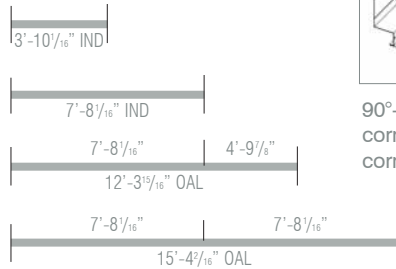
T5 options



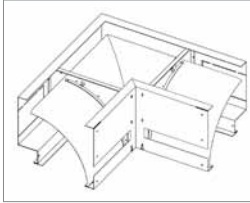
T8 options



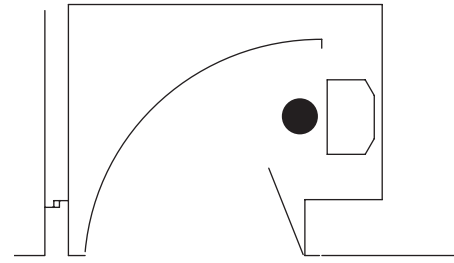
T5 Wall Wash
6"H. x 8"W.
5 1/2" aperture



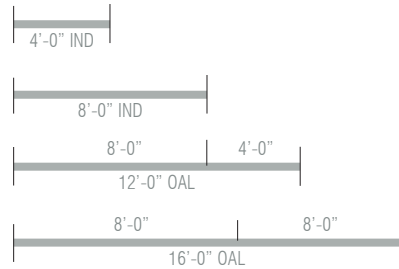
Telescoping sleeves and corners allow 1" - 6" adjustment per sleeve.



90°-135° inside and outside corners standard. Custom corners consult factory.



T8 Wall Wash
8"H. x 10"W.
7 1/16" aperture



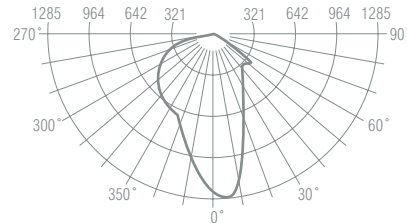
For design use only. Not for construction. See www.linearltg.com for engineering drawings specific to job.

- Pre-painted white steel housing
- 1 or 2 T5 or T5HO lamps
- 1 or 2 T8 lamps
- Up to 8' one-piece reflector factory installed
- 90° to 135° corners
- Telescoping sleeves available for wall-to-wall installation
- Factory pre-wired
- UL/CUL labels
- Weight per foot: 7 lbs. approx.

WW4-D-2-T5-NS

Efficiency: 55.6%

Max. candlepower at 15°: 1284



90° Plane

See www.linearltg.com for complete photometrics.

Catalog No.	Dir.	Lamps	Ballast	Voltage	Shielding	Mounting	Color	Add'l options	Row length
WW4	D-	-	-	-	NS	R	BW	-	-
Fixture	Lamps & Electrical Options				Mechanical & Aesthetic Options				Feet
Direction	Direct								
Lamps	1 or 2								
	2SG	2 lamps, staggered†							
Ballast	ET5	Electronic T5							
	ET5HO	High Output T5							
	ET8	Electronic T8							
Voltage	120 or 277								
	347								
	Verify Voltage								
	Add'l								
	NO (No Option) AR Air Return CB Checkboard Circuit™ A or B EC Emergency Circuit ED Electronic Dimming* EM Emergency Ballast** FU Fusing ISB10 Inst Start Blst <10%†† LS LutronEcoSys Sensor Feed NL Night Light PBIS Premium Blst Inst Start PBPS Premium Blst Prog Start PSB10 Prog Start Blst <10%†† RFI Radio Frq Int Suprsr SC Separate Circuits SG Staggered Lamps† SF Special Feature please define								
	2', 3', 4', 5', 6', 8'								

* Dimming ballasts may not be available for all T5/T5HO lamp lengths. Consult factory.

** EM packs may not be available for all T5/T5HO lamp lengths. Consult factory.

†† ISB10 and PSB10 available with T8 only.

† Available with 2-lamp configuration only.

Linear Lighting Corp.

31-30 Hunters Point Ave., Long Island City, NY 11101 ©9/10

718-361-7552 Fax 718-937-2747 Web: www.linearltg.com

See www.linearltg.com for IES files and additional information.

Cree Edge™ Series

LED Pathway Luminaire

Product Description

Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance. Pole mounts to rugged die cast aluminum internal flange secured by three 3/8" - 16x6" anchor bolts with 1-1/4" hook (provided). **Note:** T45 Torx 3/8" socket required for head installation. Top mounted LEDs for superior optical performance and light control.

Applications: Landscape, walk-ways and general site lighting

Performance Summary

Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See www.cree.com/lighting/products/warranty for warranty terms

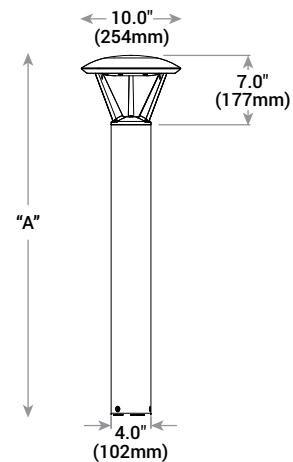
Accessories

Field-Installed

Upgrade Kit

- Used for replacement of existing bollards with a bolt hole circle of 5.75" (146mm)

XA-XBP8RSV	XA-XBP8RWH	XA-XBP8RPB
XA-XBP8RBK	XA-XBP8RBZ	



Model	Dim. "A"	Weight*
Landscape (P0)	13" (330mm)	12.7 lbs. (5.8kg)
Landscape (P1)	18" (457mm)	13.3 lbs. (6.0kg)
Pathway (P3)	36" (914mm)	17.9 lbs. (8.1kg)
Pathway (P4)	42" (1068mm)	18.6 lbs. (8.4kg)
Pedestrian (P8)	96" (2438mm)	28.4 lbs (12.9kg)

* Add 4.5 lbs. (2.0kg) for 347-480V

Ordering Information

Example: PWY-EDG-2M-P0-02-E-UL-SV-350

PWY-EDG			02	E				
Product	Optic	Mounting	LED Count (x9)	Series	Voltage	Color Options	Drive Current	Options
PWY-EDG	2M Type II Medium 3M Type III Medium 5M Type V Medium 5S Type V Short	P0 13" (330mm) landscape P1 18" (457mm) landscape P3 36" (914mm) pathway P4 42" (1067mm) pathway P8 96" (2438mm) pedestrian	02	E	UL Universal 120-277V UH Universal 347-480V - Available with P3, P4, and P8 mounts only 12 120V 27 277V	BK Black BZ Bronze SV Silver WH White ↑ Verify Color	350 350mA 525 525mA - Available with P1, P3, P4, and P8 mounts only	40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire F Fuse - When code dictates fusing, use time delay fuse - Refer to ML spec sheet for availability with ML options HL Hi/Low (Dual Circuit Input) - Refer to HL spec sheet for details - Sensor not included TL Two-Level (175/525 w/integrated sensor control) - Refer to TL spec sheet for details TL2 Two-Level (0/350 w/integrated sensor control) - Refer to TL spec sheet for details TL3 Two-Level (0/525 w/integrated sensor control) - Refer to TL spec sheet for details WB Welded Base Plate - Standard on P8 mount option, available with P3 and P4 mount - Includes welded base cover



US: www.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Rev. Date: V4 07/22/2015



Product Specifications

CONSTRUCTION & MATERIALS

- Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance
- Pole mounts to rugged die cast aluminum internal flange secured by three 3/8"-16x6" anchor bolts with 1-1/4" hook(provided)
- **Note:** T45 Torx 3/8" socket required for head installation
- Top mounted LEDs for superior optical performance and light control
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available
- **Weight:** See Dimension and Weight Chart on page 1

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load at 120V
- **Total Harmonic Distortion:** < 20% at full load at 120V
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA

Electrical Data*								
LED Count (x9)	System Watts 120-277V	System Watts 347-480V	Total Current					
			120V	208V	240V	277V	347V	480V
350mA								
02	22	28	0.18	0.12	0.10	0.10	0.09	0.13
525mA								
02	34	40	0.29	0.19	0.17	0.15	0.12	0.13

* Electrical data at 25°C (77°F)

Recommended Cree Edge™ Series Lumen Maintenance Factors (LMF) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
5°C (41°F)	1.04	0.99	0.97	0.95	0.93
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.91
20°C (68°F)	1.01	0.96	0.94	0.92	0.90
25°C (77°F)	1.00	0.95	0.93	0.91	0.89

¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing

² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

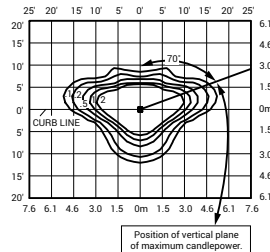
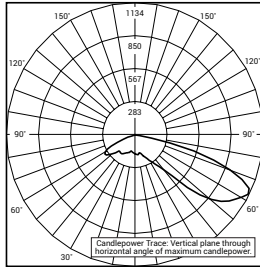
³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)



Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool

2M

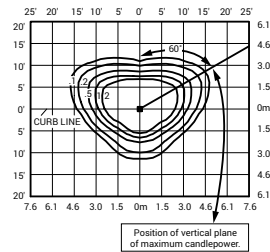
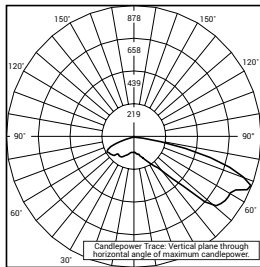


Type II Medium Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,565	B1 U0 G1	1,625	B1 U0 G1
525mA				
02	2,191	B1 U0 G1	2,276	B1 U0 G1

* Initial delivered lumens at 25°C (77°F)

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

3M

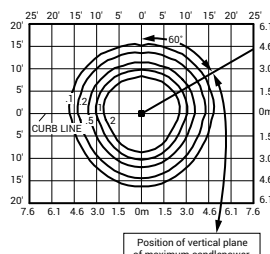
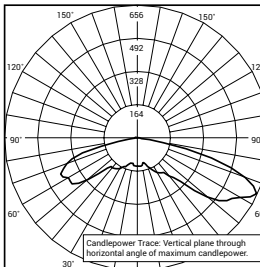


Type III Medium Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,389	B1 U0 G1	1,442	B1 U0 G1
525mA				
02	1,944	B1 U0 G1	2,019	B1 U0 G1

* Initial delivered lumens at 25°C (77°F)

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

5M



Type V Medium Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,666	B1 U2 G1	1,730	B1 U2 G1
525mA				
02	2,333	B2 U2 G2	2,422	B2 U2 G2

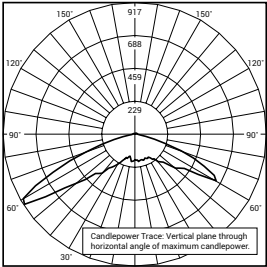
* Initial delivered lumens at 25°C (77°F)

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

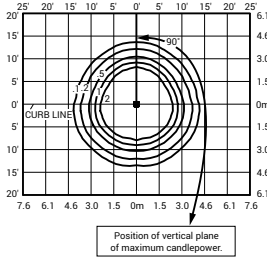
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool

5S



RESTL Test Report #: PL5759-001
PWY-EDG-5S-**-02-E-UL-350-40K
Initial Delivered Lumens: 1,897

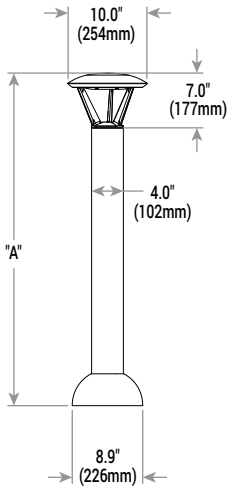


PWY-EDG-5S-**-02-E-UL-350-40K
Mounting Height: 3' (0.9m) A.F.G.
Initial Delivered Lumens: 1,868
Initial FC at grade

Type V Short Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,868	B1 U2 G1	1,940	B1 U2 G1
525mA				
02	2,615	B1 U2 G1	2,716	B1 U2 G1

* Initial delivered lumens at 25°C (77°F)
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

with Welded Base



Model	Dim. "A"	Weight*
Pathway (P3)	36" (914mm)	17.9 lbs. (8.1kg)
Pathway (P4)	42" (1068mm)	18.6 lbs. (8.4kg)
Pedestrian (P8)	96" (2438mm)	28.4 lbs (12.9kg)

* Add 4.5 lbs. (2.0kg) for 347-480V



Cree Edge™ Series

LED Pathway Luminaire

Product Description

Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance. Pole mounts to rugged die cast aluminum internal flange secured by three 3/8" - 16x6" anchor bolts with 1-1/4" hook (provided). **Note:** T45 Torx 3/8" socket required for head installation. Top mounted LEDs for superior optical performance and light control.

Applications: Landscape, walk-ways and general site lighting

Performance Summary

Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

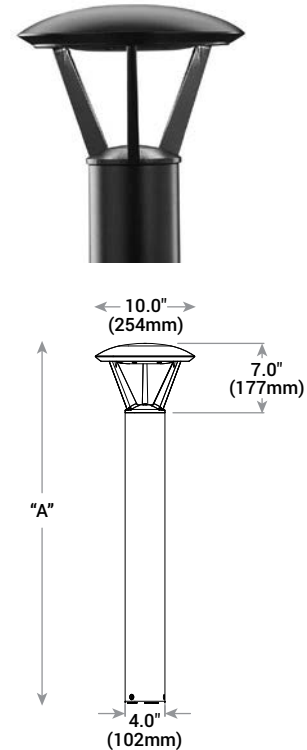
CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See www.cree.com/lighting/products/warranty for warranty terms

Accessories

Field-Installed		
Upgrade Kit		
- Used for replacement of existing bollards with a bolt hole circle of 5.75" (146mm)		
XA-XBP8RSV	XA-XBP8RWH	XA-XBP8RPB
XA-XBP8RBK	XA-XBP8RBZ	



Model	Dim. "A"	Weight*
Landscape (P0)	13" (330mm)	12.7 lbs. (5.8kg)
Landscape (P1)	18" (457mm)	13.3 lbs. (6.0kg)
Pathway (P3)	36" (914mm)	17.9 lbs. (8.1kg)
Pathway (P4)	42" (1068mm)	18.6 lbs. (8.4kg)
Pedestrian (P8)	96" (2438mm)	28.4 lbs (12.9kg)

* Add 4.5 lbs. (2.0kg) for 347-480V

Ordering Information

Example: PWY-EDG-2M-P0-02-E-UL-SV-350

PWY-EDG			02	E				
Product	Optic	Mounting	LED Count (x9)	Series	Voltage	Color Options	Drive Current	Options
PWY-EDG	2M Type II Medium	P0 13" (330mm) landscape	02	E	UL Universal 120-277V	BK Black	350 350mA	40K 4000K Color Temperature
	3M Type III Medium	P1 18" (457mm) landscape			UH Universal 347-480V	BZ Bronze	525 525mA	F Fuse
	5M Type V Medium	P3 36" (914mm) pathway			- Available with P3, P4, and P8 mounts only	SV Silver	- Available with P1, P3, P4, and P8 mounts only	- When code dictates fusing, use time delay fuse
	5S Type V Short	P4 42" (1067mm) pathway			12 120V	WH White		- Refer to ML spec sheet for availability with ML options
		P8 96" (2438mm) pedestrian			27 277V			- Sensor not included
								HL Hi/Low (Dual Circuit Input)
								- Refer to HL spec sheet for details
								TL Two-Level (175/525 w/integrated sensor control)
								- Refer to TL spec sheet for details
								TL2 Two-Level (0/350 w/integrated sensor control)
								- Refer to TL spec sheet for details
								TL3 Two-Level (0/525 w/integrated sensor control)
								- Refer to TL spec sheet for details
								WB Welded Base Plate
								- Standard on P8 mount option, available with P3 and P4 mount
								- Includes welded base cover

Verify Color



US: www.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Rev. Date: V4 07/22/2015



Product Specifications

CONSTRUCTION & MATERIALS

- Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance
- Pole mounts to rugged die cast aluminum internal flange secured by three 3/8"-16x6" anchor bolts with 1-1/4" hook(provided)
- **Note:** T45 Torx 3/8" socket required for head installation
- Top mounted LEDs for superior optical performance and light control
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available
- **Weight:** See Dimension and Weight Chart on page 1

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load at 120V
- **Total Harmonic Distortion:** < 20% at full load at 120V
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA

Electrical Data*								
LED Count (x9)	System Watts 120-277V	System Watts 347-480V	Total Current					
			120V	208V	240V	277V	347V	480V
350mA								
02	22	28	0.18	0.12	0.10	0.10	0.09	0.13
525mA								
02	34	40	0.29	0.19	0.17	0.15	0.12	0.13

* Electrical data at 25°C (77°F)

Recommended Cree Edge™ Series Lumen Maintenance Factors (LMF) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
5°C (41°F)	1.04	0.99	0.97	0.95	0.93
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.91
20°C (68°F)	1.01	0.96	0.94	0.92	0.90
25°C (77°F)	1.00	0.95	0.93	0.91	0.89

¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing

² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

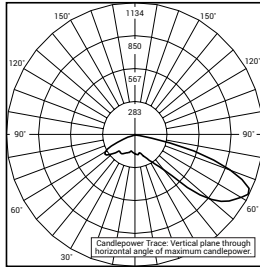
³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)



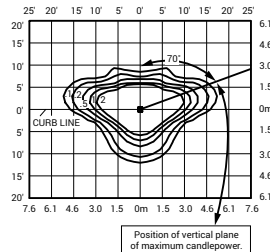
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool

2M



RESTL Test Report #: PL5758-001
PWY-EDG-2M-**-02-E-UL-350-40K
Initial Delivered Lumens: 1,549



PWY-EDG-2M-**-02-E-UL-350-40K
Mounting Height: 3' (0.9m) A.F.G.
Initial Delivered Lumens: 1,565
Initial FC at grade

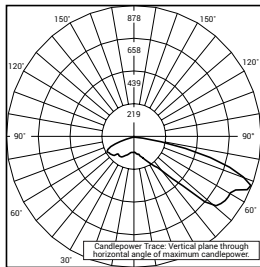
Type II Medium Distribution

LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens ⁺	BUG Ratings ⁺⁺ Per TM-15-11	Initial Delivered Lumens ⁺	BUG Ratings ⁺⁺ Per TM-15-11
350mA				
02	1,565	B1 U0 G1	1,625	B1 U0 G1
525mA				
02	2,191	B1 U0 G1	2,276	B1 U0 G1

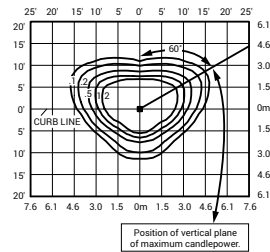
* Initial delivered lumens at 25°C (77°F)

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

3M



RESTL Test Report #: PL5698-001
PWY-EDG-3M-**-02-E-UL-350-40K
Initial Delivered Lumens: 1,470



PWY-EDG-3M-**-02-E-UL-350-40K
Mounting Height: 3' (0.9m) A.F.G.
Initial Delivered Lumens: 1,389
Initial FC at grade

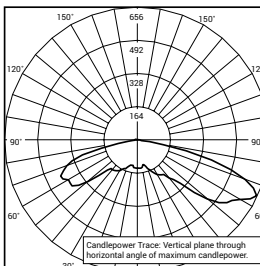
Type III Medium Distribution

LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens¹	BUG Ratings** Per TM-15-11	Initial Delivered Lumens¹	BUG Ratings** Per TM-15-11
350mA				
02	1,389	B1 U0 G1	1,442	B1 U0 G1
525mA				
02	1,944	B1 U0 G1	2,019	B1 U0 G1

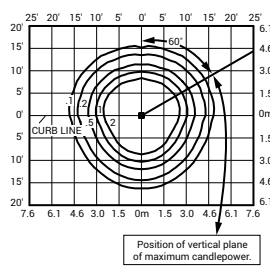
* Initial delivered lumens at 25°C (77°F)

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

5M



RESTL Test Report #: PL5798-001
PWY-EDG-5M-**-02-E-UL-350-40K
Initial Delivered Lumens: 1,780



PWY-EDG-5M-**-02-E-UL-350-40K
Mounting Height: 3' (0.9m) A.F.G.
Initial Delivered Lumens: 1,666
Initial FC at grade

Type V Medium Distribution

LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,666	B1 U2 G1	1,730	B1 U2 G1
525mA				
02	2,333	B2 U2 G2	2,422	B2 U2 G2

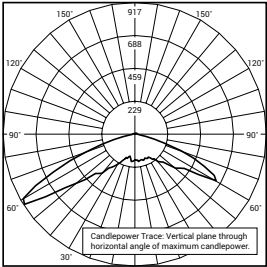
* Initial delivered lumens at 25°C (77°F)

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

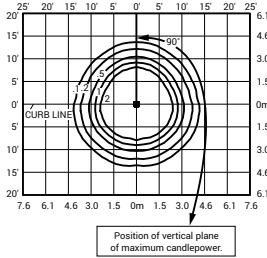
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool

5S



RESTL Test Report #: PL5759-001
PWY-EDG-5S-**-02-E-UL-350-40K
Initial Delivered Lumens: 1,897

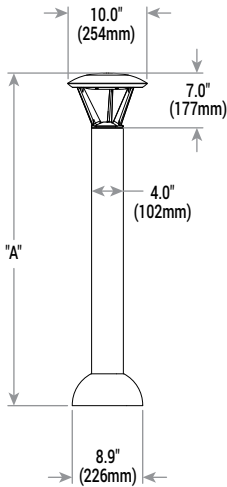


PWY-EDG-5S-**-02-E-UL-350-40K
Mounting Height: 3' (0.9m) A.F.G.
Initial Delivered Lumens: 1,868
Initial FC at grade

Type V Short Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,868	B1 U2 G1	1,940	B1 U2 G1
525mA				
02	2,615	B1 U2 G1	2,716	B1 U2 G1

* Initial delivered lumens at 25°C (77°F)
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

with Welded Base



Model	Dim. "A"	Weight*
Pathway (P3)	36" (914mm)	17.9 lbs. (8.1kg)
Pathway (P4)	42" (1068mm)	18.6 lbs. (8.4kg)
Pedestrian (P8)	96" (2438mm)	28.4 lbs (12.9kg)

* Add 4.5 lbs. (2.0kg) for 347-480V



OW2480 – PASSAGE™

Mullion Mount with Remote Power Supply



Type: EK (ASI 039)

Project: WEBSTER ISB

VisaLighting.com/products/Passage

Fill in shaded boxes using information listed below

Order Code: OW2480

L30K-H

MVOLT

GLIM

MODEL

A SOURCE

B VOLTAGE

C FINISH

D OPTIONS



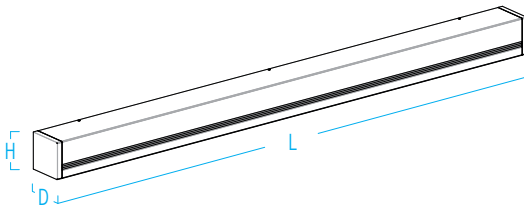
Passage is a sleek outdoor fixture for mounting horizontally over doorways, on facades, along paths of egress and window mullions

DIMENSIONS

Depth is measured from wall to front of fixture

L = Length H = Height D = Depth

L	37-1/4"	(946 mm)
H	2-1/2"	(64 mm)
D	2-1/2"	(64 mm)



A SOURCE (Select one) B VOLTAGE

MVOLT fixture accepts 120 through 277 input voltage
Dimmable 0-10V to 10%
82CRI, within 3-step MacAdam

	Source	CCT	Delivered Lumens	Power (Watts)	Voltage
●	L30K-L	3000K	550	18	MVOLT
	L35K-L	3500K			
●	L40K-L	4000K			
●	L30K-H	3000K	1700	47	
	L35K-H	3500K			
●	L40K-H	4000K			

C FINISHES (Select one)

See page 2 for color chart

Powder Coat Painted Finishes (Standard)

AG7038	Agate Grey	GW9002	Grey White
BMAT	Bronze Matte	HTHR	Heather
BRNZ	Bronze	JB9005	Jet Black
BSIL	Blade Silver	OBRZ	Old Bronze
CVBL	Cove Blue	PB1035	Pearl Beige
CW9001	Cream White	RUST	Rust
GLIM	Glimmer	SUNG	Sungold
GSIL	Graphite Silver	TW9016	Traffic White

D OPTIONS (Multiple Selections Allowed)

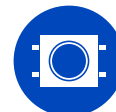
⚠ Option availability may be interdependent with Voltage, Source or Other Options

DS Dual circuit switching (includes 2 drivers).
Lumen output and wattage is split in half for each circuit

XPS Express 10 day shipping.
Items marked with a bullet (•) are not available with XPS



XPS



LED



ADA Compliant



ETL Listed



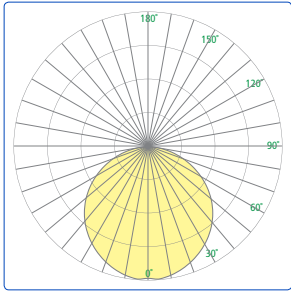
5 Year Warranty

OW2480 – PASSAGE™

Mullion Mount with Remote Power Supply

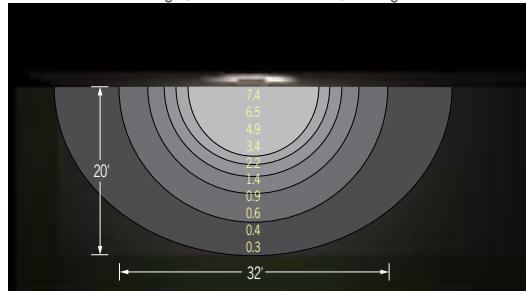


Photometrics

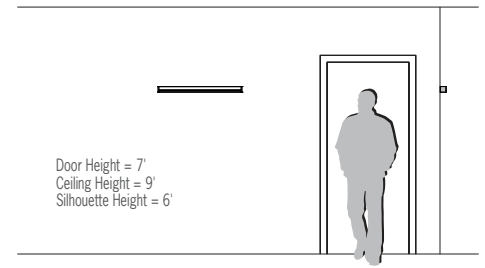


Path of Egress

OW2480 –H Downlight, Mounted at 10' AFF, .70 light loss factor used



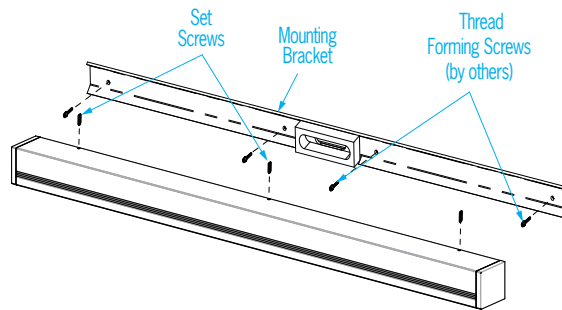
Relative Scale Drawing



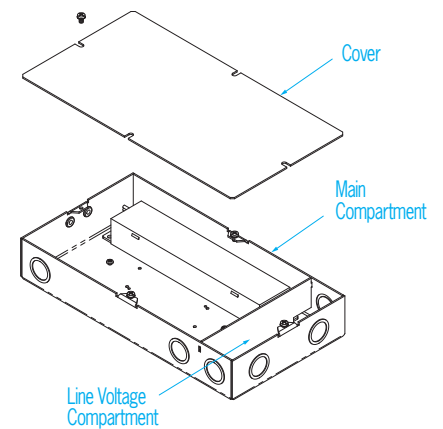
Technical Information

- High or low lumen output options
- Light Engines by Visa Lighting
- Remote power supply included (suitable for indoor, Type IC)
- Modular design for replacement of LED source and power supply
- Orient as uplight or downlight
- Optional dual circuit switching
- IP65 rated
- Bracket mounting system simplifies installation and maintenance
- Window mullion mount; Minimum mullion width 2.5"
- Tamper resistant fasteners
- Polycarbonate diffuser
- No VOC powder coat paint finish
- ETL listed for wet location (remote power supply is listed for damp location)

Mullion Mounting Detail

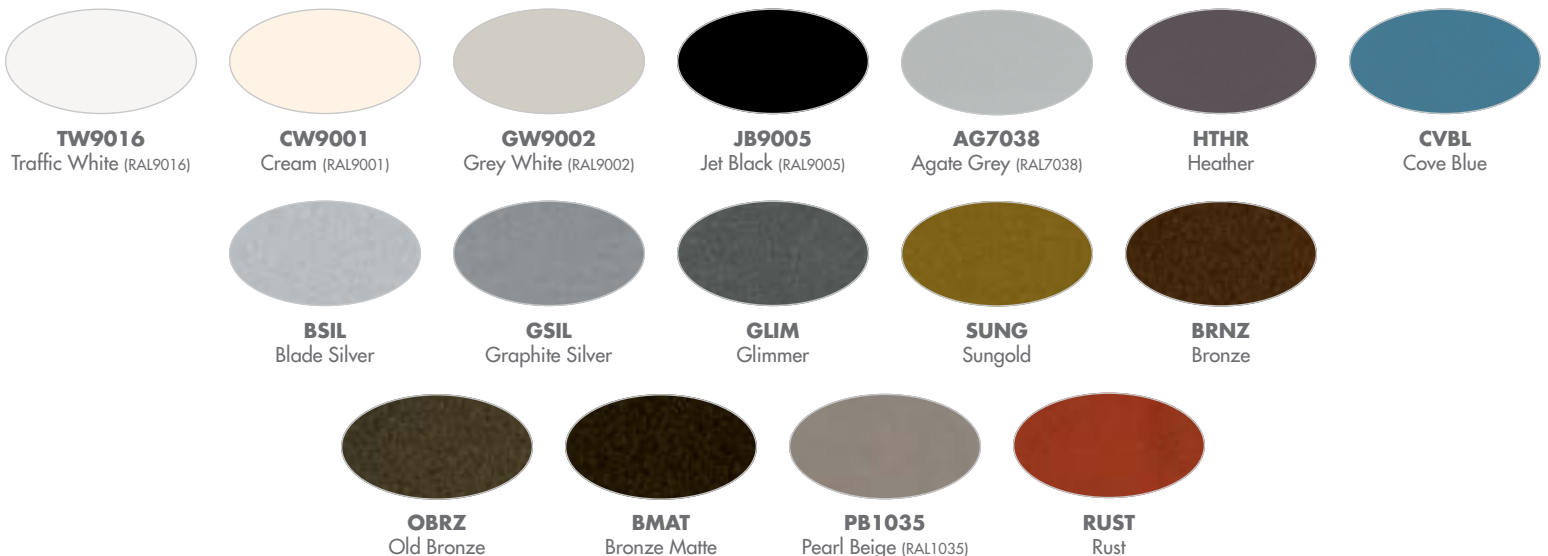


Remote Power Supply Enclosure



Specify color code when ordering. For accurate color matching, individual paint and finish samples are [available upon request](#). For additional information see VisaLighting.com/materials-finishes

Painted Finishes (Standard)



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Qut Cd B17-0086

To Project

Villa Lighting Supply
2929 Chouteau Ave
St Louis, MO 63103-2903
PH: (314) 531-2600 Fax (314) 531-8720

Job/Project Name:
WEBSTER ISB- TYPE SA

File Path: C:\Users\jg\Documents\BOM\B17-0086\BOM

Qty	Type	Mfg	Description
Note	NOTE		Start of Import
Note			XOOLINE HYDRA LD25 W830 IP40 W/ LOW DIFFUSE LENS
Note		LEDL	ROOM 491
4	SA-29'-2"	LEDL	XOOLINE HYD LD25 830/1880-DL-C002-IP40 length - 6.16'
1		LEDL	CUSTOM XOOLINE HYD LD25 830/1380-DL- C002-IP40 length - 4.52'
Note		LEDL	EACH PIECE MUST HOME RUN BACK TO POWER SUPPLY
5		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
5		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
5		SSLT	HLG-60H-24A 60w 24v LED driver 90-305vac (on/off)
Note		LEDL	MAXIMUM 1 X 6.16' PIECES PER 60W POWER SUPPLY
5		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 489
1	SA-9'-5"	LEDL	XOOLINE HYD LD25 830/0380-DL-C002-IP40 length - 1.24'
2		LEDL	XOOLINE HYD LD25 830/1255-DL-C002-IP40 length - 4.11'
1		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1		SSLT	HLG-100H-24A 100w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 483
4	SA-29'-11"	LEDL	XOOLINE HYD LD25 830/1880-DL-C002-IP40 length - 6.16'
1		LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL- C002-IP40 length - 2.88'
Note		LEDL	CONNECT MAXIMUM 1 X 6.16' + 1 X 2.88' PIECES IN SERIES
4		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142

4	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
3	SSLT	HLG-60H-24A 60w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 1 X 6.16' PIECES PER 60W POWER SUPPLY
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 1 X 6.16' + 1 X 2.88' PIECES PER 80W POWER SUPPLY
4	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 452
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL- C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 454
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL- C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 456
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL- C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 407
1 SA-18'-11"	LEDL	XOOLINE HYD LD25 830/1880-DL-C002-IP40 length - 6.16'
3	LEDL	XOOLINE HYD LD25 830/1255-DL-C002-IP40 length - 4.11'
Note	LEDL	CONNECT MAXIMUM 2 X 4.11' PIECES IN SERIES
3	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
3	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218

1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 2 X 4.11' PIECES PER 80W POWER SUPPLY
2	SSLT	HLG-60H-24A 60w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 1 X 6.16' PIECES PER 60W POWER SUPPLY
3	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 405
3 SA-8'-10"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 403 CURVED
4 SA-8'	LEDL	XOOLINE HYD LD25 830/0380-DL-C002-IP40 length -14.96" each
1	LEDL	XOOLINE HYD LD25 830/0880-DL-C002-IP40
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 401 CURVED
4 SA-17'	LEDL	XOOLINE HYD LD25 830/0380-DL-C002-IP40 length - 14.96"e
4	LEDL	XOOLINE HYD LD25 830/0630-DL-C002-IP40 length - 2.06'
Note	LEDL	CONNECT MAXIMUM 1 X 4.11' + 2 X 2.06' PIECES IN SERIES
2	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
2	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
2	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 1 X 4.11' + 2 X 2.06' PIECES PER 80W POWER SUPPLY
2	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 354
2 SA-14'-3"	LEDL	XOOLINE HYD LD25 830/1255-DL-C002-IP40 length - 4.11'
2	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
Note	LEDL	CONNECT MAXIMUM 2 X 4.11' PIECES IN SERIES
2	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67

		15000142
2	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO
		15000218
1	SSLT	HLG-80H-24A
		80w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 2 X 4.11' PIECES PER 80W POWER SUPPLY
1	SSLT	HLG-60H-24A
		60w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 2 X 2.88' PIECES PER 60W POWER SUPPLY
2	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 352
5 SA-23'-11"	LEDL	XOOLINE HYD LD25 830/1255-DL-C002-IP40 length - 4.11'
1	LEDL	XOOLINE HYD LD25 830/0630-DL-C002-IP40 length - 2.06'
1	LEDL	XOOLINE HYD LD25 830/0380-DL-C002-IP40 length - 1.24'
Note	LEDL	CONNECT MAXIMUM 2 X 4.11' PIECES IN SERIES
3	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67
		15000142
3	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO
		15000218
3	SSLT	HLG-80H-24A
		80w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 2 X 4.11' PIECES PER 80W POWER SUPPLY
3	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 348
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67
		15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO
		15000218
1	SSLT	HLG-80H-24A
		80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 346
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67
		15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO
		15000218
1	SSLT	HLG-80H-24A
		80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 344
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'

1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 342
2 SA-12'-7"	LEDL	XOOLINE HYD LD25 830/1880-DL-C002-IP40 length - 6.16'
Note	LEDL	EACH LENGTH MUST HOME RUN BACK TO POWER SUPPLY
2	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
2	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
2	SSLT	HLG-60H-24A 60w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 1 X 6.16' PIECE PER 60W POWER SUPPLY
2	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 342
1 SA-11'	LEDL	XOOLINE HYD LD25 830/1880-DL-C002-IP40 length - 6.16'
1	LEDL	CUSTOM XOOLINE HYD LD25 830/1380-DL- C002-IP40 length - 4.52'
Note	LEDL	EACH LENGTH MUST HOME RUN BACK TO POWER SUPPLY
2	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
2	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-100H-24A 100w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 339
2 SA-13'-2"	LEDL	XOOLINE HYD LD25 830/1255-DL-C002-IP40 length - 4.11'
2	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL- C002-IP40 length - 2.88'
Note	LEDL	CONNECT MAXIMUM 2 X 4.11' PIECES IN SERIES
2	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
2	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 2 X 4.11' PIECES PER 80W POWER SUPPLY
1	SSLT	HLG-60H-24A 60w 24v LED driver 90-305vac (on/off)
Note	LEDL	MAXIMUM 2 X 2.88' PIECES PER 60W POWER SUPPLY
2	LEDL	LINEAR DRIVE DC 211D-LG

Note		LEDL	ROOM 337
3	SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1		SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 335
3	SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1		SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 333
3	SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1		SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 331
3	SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1		SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 329
3	SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1		SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG

Note		LEDL	ROOM 327
3	SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1		SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 325
2	SA-16'-3"	LEDL	XOOLINE HYD LD25 830/1255-DL-C002-IP40 length - 4.11'
2		LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1		LEDL	XOOLINE HYD LD25 830/0630-DL-C002-IP40 length - 2.06'
Note		LEDL	CONNECT MAXIMUM 2 X 4.11' PIECES IN SERIES
2		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
2		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
2		SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
Note		LEDL	MAXIMUM 2 X 4.11' PIECES PER 80W POWER SUPPLY
2		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 325
3	SA-8'-9"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1		SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 323
3	SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40 length - 2.88'
1		LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1		LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1		SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG
Note		LEDL	ROOM 321
3	SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL-C002-IP40

		length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 319
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL- C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 317
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL- C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 315
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL- C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	ROOM 313
3 SA-8'-11"	LEDL	CUSTOM XOOLINE HYD LD25 830/0880-DL- C002-IP40 length - 2.88'
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-80H-24A 80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
Note	LEDL	COMMON AREA NORTH OF 354
1 SA-2'	LEDL	XOOLINE HYD LD25 830/0630-DL-C002-IP40

		LENGTH - 24.80"
1	LEDL	VARIOCON FEMALE MINI 2 X 0.34MM2 2M IP67 15000142
1	LEDL	VARIOCON FEMALE MINI PROTECTION CAP MONO 15000218
1	SSLT	HLG-40H-24A 40w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
115	LEDL	ADJUSTABLE MOUNTING BRACKET 002/004 (SET OF 2) 13000082
15	LEDL	VARIOCON EXTENSION MINI 2 X 0.34MM2 0.1M IP67 15000143



Qut Cd D17-0024

To

Melissa Carrini

Villa Lighting Supply

2929 Chouteau Ave

St Louis, MO 63103-2903

PH: (314) 531-2600 Fax (314) 531-8720

Project

Job/Project Name:

WEBSTER TYPE EB

Entry Date: 4/5/2017

Qty	Type	Mfg	Description
		LEDL	VARIOLED HYDRA LD10 W825 (3300K) IP67 IN
		LEDL	003 CONTOUR W/ 30 DEG DIFFUSE LENS
		LEDL	1 RUN @ 17'
		LEDL	ACTUAL LENGTH = 16.65'
2	EB-17'	LEDL	THE 17' LENGTH WILL BE MADE OF 4 X 4.16' PIECES
		LEDL	VARIOLED HYDRA LD10 W825/1269MM IP67 IN
		LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
		LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
2		LEDL	VARIOLED HYDRA LD10 W825/1269MM IP67 IN
		LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
		LEDL	CONNECT ONLY
16		LEDL	VARIOCLIPS 003/006 45 DEG.
		LEDL	13000006-45
1		SSLT	HLG-60H-24A
		SSLT	60w 24v LED driver 90-305vac (on/off)
1		LEDL	LINEAR DRIVE DC 211D-LG
		LEDL	
		LEDL	1 RUN @ 19'-5" (19.41')
		LEDL	ACTUAL LENGTH = 18.64'
		LEDL	THE 19'-5" LENGTH WILL BE MADE OF 3 X 6.21'
		LEDL	PIECES
1	EB-19'-5"	LEDL	VARIOLED HYDRA LD10 W825/1894MM IP67 IN
		LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
		LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
1		LEDL	VARIOLED HYDRA LD10 W825/1894MM IP67 IN
		LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
		LEDL	CONNECT ONLY
1		LEDL	VARIOLED HYDRA LD10 W825/1894MM IP67 IN
		LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
		LEDL	OPEN ON ONE END ONLY

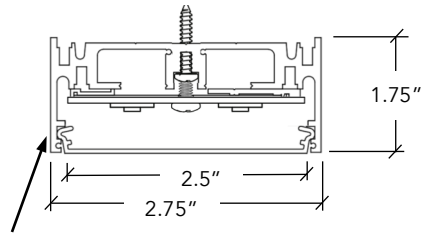
18	LEDL	VARIOCLIPS 003/006 45 DEG.
	LEDL	13000006-45
1	SSLT	HLG-80H-24A
	SSLT	80w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
	LEDL	
	LEDL	3 RUNS @ 15'-9" (15.75')
	LEDL	ACTUAL LENGTH = 15.36'
	LEDL	EACH 15'-9" LENGTH WILL BE MADE OF 2 X 4.98'
	LEDL	+ 1 X 5.39' PIECES
3 EB-15'-9"	LEDL	VARIOLED HYDRA LD10 W825/1519MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
	LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
3	LEDL	VARIOLED HYDRA LD10 W825/1644MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS
3	LEDL	VARIOLED HYDRA LD10 W825/1519MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
	LEDL	CONNECT ONLY
45	LEDL	VARIOCLIPS 003/006 45 DEG.
	LEDL	13000006-45
3	SSLT	HLG-60H-24A
	SSLT	60w 24v LED driver 90-305vac (on/off)
3	LEDL	LINEAR DRIVE DC 211D-LG
	LEDL	
	LEDL	1 RUN @ 13'-6" (13.5')
	LEDL	ACTUAL LENGTH = 13.31'
	LEDL	THE 13'-6" LENGTH WILL BE MADE OF 2 X 4.57' +
	LEDL	1 X 4.16' PIECES
1 EB-13'-6"	LEDL	VARIOLED HYDRA LD10 W825/1394MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
	LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
1	LEDL	VARIOLED HYDRA LD10 W825/1269MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS
1	LEDL	VARIOLED HYDRA LD10 W825/1394MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
	LEDL	CONNECT ONLY
12	LEDL	VARIOCLIPS 003/006 45 DEG.
	LEDL	13000006-45
1	SSLT	HLG-60H-24A
	SSLT	60w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
	LEDL	
	LEDL	1 RUN @ 11'-1" (11.08')
	LEDL	ACTUAL LENGTH = 10.78'
	LEDL	THE 11'-1" LENGTH WILL BE MADE OF 2 X 5.39'
	LEDL	PIECES
1 EB-11'-1"	LEDL	VARIOLED HYDRA LD10 W825/1644MM IP67 IN

	LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
	LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
1	LEDL	VARIOLED HYDRA LD10 W825/1644MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
	LEDL	CONNECT ONLY
10	LEDL	VARIOCLIPS 003/006 45 DEG.
	LEDL	13000006-45
1	SSLT	HLG-60H-24A
	SSLT	60w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
	LEDL	1 RUN @ 15'-6" (15.5')
	LEDL	ACTUAL LENGTH = 15.36'
	LEDL	THE 15'-6" LENGTH WILL BE MADE OF 2 X 4.98' +
	LEDL	1 X 5.39' PIECES
1 EB-15'-6"	LEDL	VARIOLED HYDRA LD10 W825/1519MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
	LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
1	LEDL	VARIOLED HYDRA LD10 W825/1644MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS
1	LEDL	VARIOLED HYDRA LD10 W825/1519MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
	LEDL	CONNECT ONLY
15	LEDL	VARIOCLIPS 003/006 45 DEG.
	LEDL	13000006-45
1	SSLT	HLG-60H-24A
	SSLT	60w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
	LEDL	
	LEDL	1 RUN @ 15'-10" (15.83')
	LEDL	ACTUAL LENGTH = 15.77'
	LEDL	THE 15'-10" LENGTH WILL BE MADE OF 2 X 5.39'
	LEDL	+ 1 X 4.98' PIECES
1 EB-15'-10"	LEDL	VARIOLED HYDRA LD10 W825/1644MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
	LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
1	LEDL	VARIOLED HYDRA LD10 W825/1519MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS
1	LEDL	VARIOLED HYDRA LD10 W825/1644MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
	LEDL	CONNECT ONLY
15	LEDL	VARIOCLIPS 003/006 45 DEG.
	LEDL	13000006-45
1	SSLT	HLG-60H-24A
	SSLT	60w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
	LEDL	
	LEDL	1 RUN @ 15'-7" (15.58')

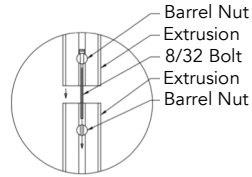
	LEDL	ACTUAL LENGTH = 15.36'
	LEDL	THE 15'-7" LENGTH WILL BE MADE OF 2 X 4.98' +
	LEDL	1 X 5.39' PIECES
1	EB-15'-7"	LEDL VARIOLED HYDRA LD10 W825/1519MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
	LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
1	LEDL	VARIOLED HYDRA LD10 W825/1644MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS
1	LEDL	VARIOLED HYDRA LD10 W825/1519MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
	LEDL	CONNECT ONLY
15	LEDL	VARIOCLIPS 003/006 45 DEG.
	LEDL	13000006-45
1	SSLT	HLG-60H-24A
	SSLT	60w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
	LEDL	
	LEDL	2 RUNS @ 14'-6" (14.5')
	LEDL	ACTUAL LENGTH = 14.13'
	LEDL	EACH 14'-6" LENGTH WILL BE MADE OF 2 X 4.57'
	LEDL	+ 1 X 4.98' PIECES
2	EB-14'-6"	LEDL VARIOLED HYDRA LD10 W825/1394MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
	LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
2	LEDL	VARIOLED HYDRA LD10 W825/1519MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS
2	LEDL	VARIOLED HYDRA LD10 W825/1394MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
	LEDL	CONNECT ONLY
24	LEDL	VARIOCLIPS 003/006 45 DEG.
	LEDL	13000006-45
2	SSLT	HLG-60H-24A
	SSLT	60w 24v LED driver 90-305vac (on/off)
2	LEDL	LINEAR DRIVE DC 211D-LG
	LEDL	
	LEDL	1 RUN @ 9'-8" (9.66')
	LEDL	ACTUAL LENGTH = 9.55'
	LEDL	THE 9'-8" LENGTH WILL BE MADE OF 1 X 4.57' +
	LEDL	1 X 4.98' PIECES
1	EB-9'-8"	LEDL VARIOLED HYDRA LD10 W825/1394MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, 500MM BLACK
	LEDL	OPEN ON ONE END AND FEMALE BLACK CONNECT
1	LEDL	VARIOLED HYDRA LD10 W825/1519MM IP67 IN
	LEDL	003 W/ 60 DEG DIFFUSE LENS, MALE BLACK
	LEDL	CONNECT ONLY
8	LEDL	VARIOCLIPS 003/006 45 DEG.
	LEDL	13000006-45

1	SSLT	HLG-40H-24A
	SSLT	40w 24v LED driver 90-305vac (on/off)
1	LEDL	LINEAR DRIVE DC 211D-LG
	LEDL	THE FOLLOWING ARE 6M IP68 CABLES. 1 PER RUN
	LEDL	(RUN SET UP) AS REQUIRED.
300	LEDL	VARIOCABLE MONO 2 X 0.34 MM2 IP68 - PER FT
	LEDL	14000030
	LEDL	THE ABOVE ITEM TO BE DONE IN 15 X 6M PIECES

CROSS SECTION



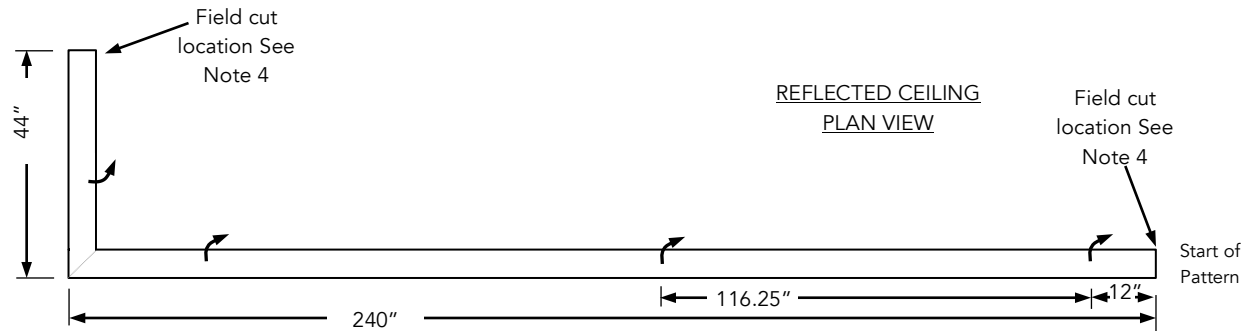
Entire Housing to be finished white.



STRAIGHT CONNECTION

Symbol = Feed cable exit location

1. 2.5" wide acrylic white lens, continuous run up to 26ft. Snap in fit.
2. Extruded aluminum housing, 6005T5 material up to 12' max length. Couple together via cross bolts to ensure straightness.
3. 3000K 35CRI LED in light guide. Mounted via screws 12" O.C. #1AML = 4.9w/ft, 2AML = 9.8w/ft.
4. Housings with FC option may be field cut up to 6" at end opposite feed cable. **Must use blade for non-ferrous material, 80 teeth minimum.**
 - A. Cut both housing and LED panel in same pass (panel has NO LEDs in it initially)
 - B. After cutting, remove the LED panel and return to factory in FedEx box provided.
- PANELS MUST BE RETURNED, EVEN IF NOT CUT, AS THEY ARE TEMPLATE & CANNOT BE DUPLICATED**
- C. Install housings while factory adds LED boards to the cut panels. Allow 1-2 weeks for panels.
5. CL2P cable 75' length exits back of fixture.
6. Remote power supply (not shown). Multiple fixtures connect to each power supply. 120-277Vac input, 24Vdc constant voltage output. #N100 = non-dim, #D010 = 0-10V dimmable. One power supply for every 200W.
7. Order length includes .125" thick stamped end caps at end of pattern.



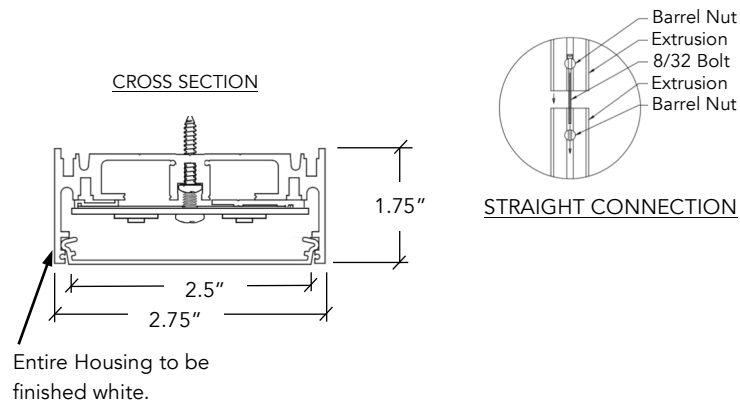
Approved by: _____

Date: _____

NOTE: ALL DIMENSIONS TO BE VERIFIED OR CORRECTED UPON RELEASE
ABOVE DRAWINGS NOT TO SCALE

TYPE	CATALOG #	WATTAGE	REVISIONS	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY
BA LVL-1	HL25-2AML3-30-1-W-R-S-240FC-RT90-44FC-WH-in-CL2P75 / R-x-N100-UNV	237		Webster University Stairwell					
				CUSTOMER					
				DRAWN BY	DZ		SCALE	N.T.S.	PROJECT NO.
				DATE	5/10/17		SHEET	1	142-17

dado
lighting



Entire Housing to be finished white.

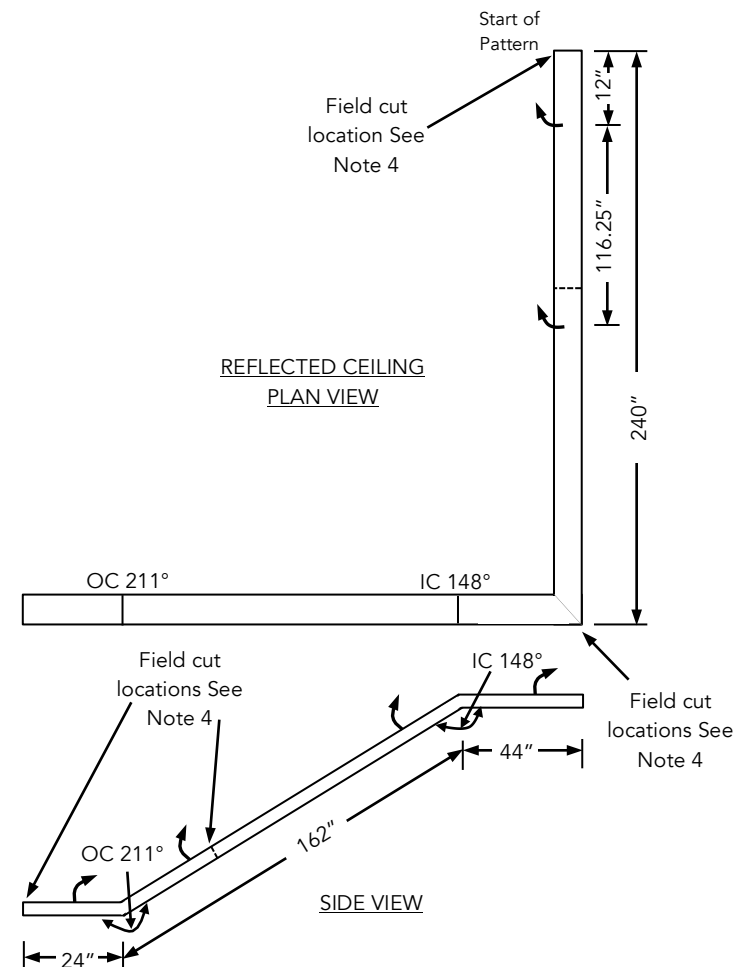
Symbol = Feed cable exit location

1. 2.5' wide acrylic white lens, continuous run up to 26ft. Snap in fit.
2. Extruded aluminum housing, 6005T5 material up to 12' max length. Couple together via cross bolts to ensure straightness.
3. 3000K B5CRI LED in light guide. Mounted via screws 12" O.C. #1AML = 4.9w/ft, 2AML = 9.8w/ft.
4. Housings with FC option may be field cut up to 6" at end opposite feed cable. **Must use blade for non-ferrous material, 80 teeth minimum.**
 - A. Cut both housing and LED panel in same pass (panel has NO LEDs in it initially)
 - B. After cutting, remove the LED panel and return to factory in FedEx box provided.
 - C. Install housings while factory adds LED boards to the cut panels. Allow 1-2 weeks for panels.
5. CL2P cable - 75' length exits back of fixture. Up to 10' of #12 wire can be added in field to reach power supply. Consult factory for longer cables if j-box cannot be within 25ft of fixture.
6. Remote power supply (not shown). Multiple fixtures connect to each power supply. 120-277Vac input, 24Vdc constant voltage output #N100 = non-dim, #D010 = 0-10V dimmable. One power supply for every 200W.
7. Order length includes .125" thick stamped end caps at ends of pattern.

Approved by: _____

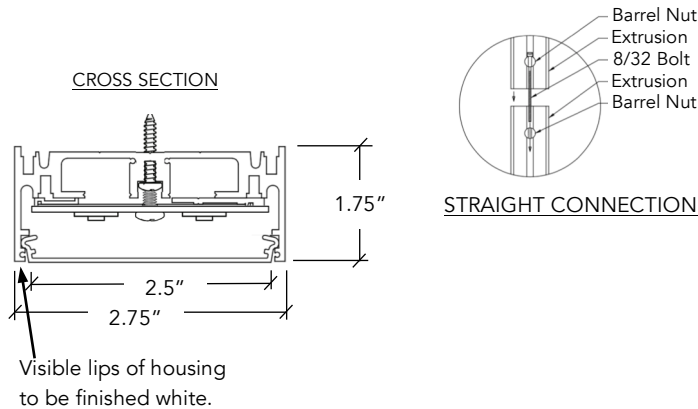
Date: _____

NOTE: ALL DIMENSIONS TO BE VERIFIED OR CORRECTED UPON RELEASE
ABOVE DRAWINGS NOT TO SCALE



TYPE	CATALOG #	WATTAGE	REVISIONS	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY
BA LVL-2	HL25-2AML3-30-1-W-R-S-240FC-RT90-44FC-IC148-162FC-OC211-24FC-WH-in-CL2P75 / R-x-N100-UNV	385		Webster University Stairwell					
				CUSTOMER					
				DRAWN BY	DZ		SCALE	N.T.S.	PROJECT NO.
				DATE	5/10/17		SHEET	2	142-17

dado
lighting



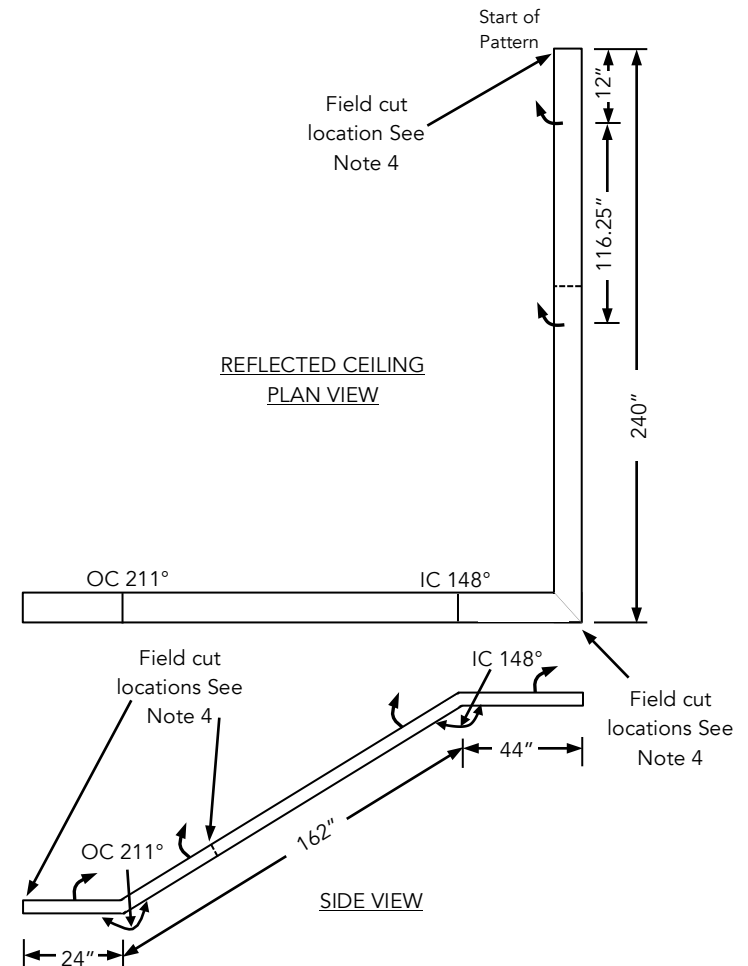
Symbol = Feed cable exit location

1. 2.5" wide acrylic white lens, continuous run up to 26ft. Snap in fit.
2. Extruded aluminum housing, 6005T5 material up to 12' max length. Couple together via cross bolts to ensure straightness.
3. 3000K B5CRI LED in light guide. Mounted via screws 12" O.C. #1AML = 4.9w/ft, 2AML = 9.8w/ft.
4. Housings with FC option may be field cut up to 6" at end opposite feed cable. **Must use blade for non-ferrous material, 80 teeth minimum.**
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 - B. After cutting, remove the LED panel and return to factory in FedEx box provided.
5. CL2P cable - 75' length exits back of fixture. Up to 10' of #12 wire can be added in field to reach power supply. Consult factory for longer cables if j-box cannot be within 25ft of fixture.
6. Remote power supply (not shown). Multiple fixtures connect to each power supply. 120-277Vac input, 24Vdc constant voltage output. #N100 = non-dim, #D010 = 0-10V dimmable. One power supply for every 200W.
7. Order length includes .125" thick stamped end caps at ends of pattern.

Approved by: _____

Date: _____

NOTE: ALL DIMENSIONS TO BE VERIFIED OR CORRECTED UPON RELEASE
ABOVE DRAWINGS NOT TO SCALE



TYPE	CATALOG #	WATTAGE	REVISIONS	DESCRIPTION			Webster University Stairwell			
				DESCRIPTION	DATE	BY	CUSTOMER			
BA LVL-3	HL25-2AML3-30-1-W-R-S-240FC-RT90-44FC-IC148-162FC-OC211-24FC-WHE-in-CL2P75 / R-x-N100-UNV	385		DRAWN BY	DZ	SCALE	N.T.S.	PROJECT NO.		
				DATE	5/10/17	SHEET	3	142-17		

dado
lighting